Video Cassette Recorder Deck: Turbo Drive APOLLO 10

Service
Service
Service

V21519

VR285/02/05/07/13/39/58
VR286/02
VR287/02/07/13/39
VR485/02/39/58
VR487/02/39/58
VR685/02/07/13/16/39/58
VR686/02/13/39

SB110/03
SB115/03
SB215/02
SB615/03/11

VRx87

VR686

VR286

VRx85

SBxxx

Service Manual

Evolution: AA

GB For chapters 2 and 4 reference is made to the Service Manual of QUEEN volume **4822 726 15512.**

D Für die Kapiteln 2 und 4 siehe Service Manual QUEEN volume **4822 726 15511.**

NL Voor de hoofdstuk 2 en 4 wordt verwezen naar de Service Documentatie van de QUEEN volume **4822 726 15514.**

F Pour ce qui est des chapitres 2 et 4 veuillez vous référer à la Documentation Service du QUEEN volume **4822 726 15513.**

I Per i capitoli 2 e 4 veda il Manuale di Servizio di QUEEN volume **4822 726 15515.**

E Para los capítulos 2 y 4 véase el manual de servicio de QUEEN volume **4822 726 15516.**

Survey of versions:

/02/03	PAL B/G, VPS/PDC
/05	PAL I, UK
/07	PAL I, Ireland
/11	PAL B/G Belgium
/13	PAL B/G, Nordic
/16	PAL B/G, Spain
/38/39	SECAM L/L', PAL B/G, PAL I
/58/59	PAL/SECAM B/G, D/K

Survey of remote controls:

VR285/02/05/07/13/58, VR485/02/58 SB110/03, SB115/03 SB215/02, SB615/03/11	**RT183/201**	4822 219 10496
VR286/02, VR287/02/07/13 VR487/02/58 VR685/02/07/13/16/58, VR686/02/13	**RT184/101**	4822 219 10498
VR285/39, VR287/39, VR485/39 VR487/39, VR685/39, VR686/39	**RT184/104**	4822 219 10501

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

Veiligheidbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen identiek aan de gespecificeerde worden toegepast.

Le prescrizioni di sicurezza richiedono che l'apparecchio siaricondoto alle condizioni originali e che siano usati ricambi originali.

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Gerätes darf nicht verändert werden. Für Reparaturen sind Originalersatzteile zu verwenden.

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utisées les piéces de rechange identiques à celles spécifiées.

Las instrucciones de seguridad exigen que después de la reparación el aparato se encuentre en el estado original y que las piezas de requesto sean idénticas a las originales.

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PCS 93721

PHILIPS

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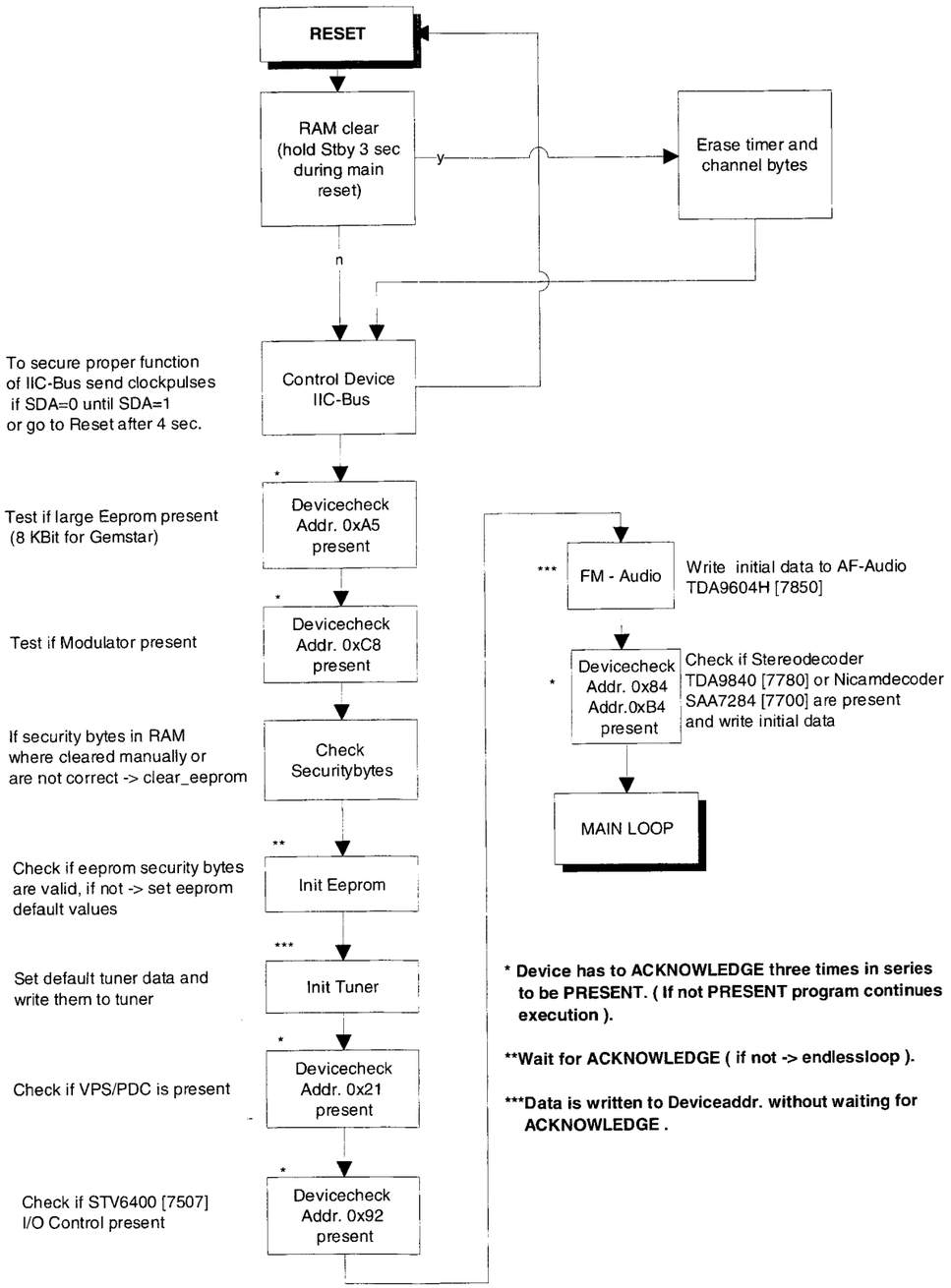
	VR285/02	VR285/05	VR285/07	VR285/13	VR285/39	VR285/58	VR286/02	VR287/02	VR287/07	VR287/13	VR287/39	VR485/02	VR485/39	VR485/58	VR487/02	VR487/39	VR487/58	VR685/02	VR685/07	VR685/13	VR685/16	VR685/39	VR685/58	VR686/02	VR686/13	VR686/39	SB110/03	SB115/03	SB215/02	SB615/03	SB615/11
Low power standby [W]	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6
Splitter for France					✔						✔		✔			✔						✔				✔						
Sound system: mono	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔										✔	✔	✔		
Sound system: stereo																		✔	✔	✔	✔	✔	✔	✔	✔	✔				✔	✔
Sound system: Nicam																			✔	✔	✔	✔	✔		✔	✔				✔	✔
FOLLOW TV (analog)					✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
WYSIWYR (analog)					✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Cable tuner incl. S-channels	✔		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Autoinstall (UK)		✔																													
Video heads:	2	2	2	2	2	2	2	2	2	2	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2	2	2	4	4
FM-audio heads (for stereo)																		2	2	2	2	2	2	2	2	2				2	2
Winding time E180 [sec]	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	260	260	100	260	260
Rewind time E180 [sec]	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	170	170	100	170	170
Clever Turbo Drive	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔			✔		
Tape lenghts recognition	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔			✔		
Longplay [8 h]		✔	✔					✔	✔	✔		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				✔	✔
Quick view	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Tape counter: linear relative																											✔	✔		✔	✔
Tape counter: linear (time used)	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔			✔		
Tape counter: linear (time used/left)																															
VISS next/previous index search	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Frame advance	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔																✔	✔	✔		
Field advance												✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				✔	✔
Studio Picture Control	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
NTSC (non-standard) playback in color							✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔	✔	✔
Tuning presets	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99
Number of events / month	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Daily/weekly	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔	✔	✔
GEMSTAR SHOWVIEW	✔			✔	✔	✔	✔	✔		✔	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔	✔	✔	✔	✔	✔		✔	✔	✔	✔
GEMSTAR VIDEOplus+		✔	✔			✔			✔				✔						✔				✔								
OTR	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
VPS / PDC / VPS+PDC (VPDC)	VPDC	VPDC	VPDC	VPDC	VPDC	VPDC	VPDC	VPDC	VPDC	VPDC	VPDC	VPDC	VPDC	VPDC	VPDC	VPDC	VPDC	VPDC	VPDC	VPDC	VPDC	VPDC	VPDC	VPDC	VPDC	VPDC		VPDC	VPDC	VPDC	VPDC
Record-prepared mode (from SCART 2)	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔			✔	✔	✔
Backup of presets	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr	1yr
Backup of clock	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs	7hrs
Transm.identif. via VPS/PDC	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔	✔	✔
Audio: Stereo/HiFi - bilingual																		✔	✔	✔	✔	✔	✔	✔	✔	✔				✔	✔
Audio dubbing																															
OSD	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Child lock							✔	✔	✔	✔	✔				✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔					
16:9 (via Scart pin 8)																															
Audio out: cinch (rear)																		✔	✔	✔	✔	✔	✔	✔	✔	✔				✔	✔
Audio / Video in: cinch (front)																		✔	✔	✔	✔	✔	✔								
Number of scart connectors	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2	2	2
VCR1/VCR2 selection																															
Time download	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔	✔	✔
Shuttle on front								✔	✔	✔	✔													✔	✔	✔					

Start - up software from the display control - µP



*** Device has to ACKNOWLEDGE three times in series to be PRESENT. (If not PRESENT program continues execution).**

****Wait for ACKNOWLEDGE (if not -> endlessloop).**

*****Data is written to Deviceaddr. without waiting for ACKNOWLEDGE .**

Survey of sets and PCB`s with software versions

| | QMB - MOTHERBOARD | | |

(GB)

TECHNICAL DATA

Mains voltage	220 - 240 V, +/- 10%
Mains frequency	45 - 65 Hz
Power consumption:	mono 12.5 W during operatio HiFi 16 W during operation
without Low Power Standby	mono 9.5 W HiFi 11 W
with Low Power Standby	< 6 W standby
Ambient temperature	+10°C to +35°C
Relative humidity	20 - 80 %
Dimensions	380 x 260 x 94 mm
Weight	3,7 kg
Fast forward/rewind time (turbo)	typ. 100s (E180 cass.)
Position of use	horizontally, max. 15°
Video resolution	≥240 lines
Audio	Audio SP: Linear Audio 80Hz - 10kHz (≤8dB) Audio LP: Linear Audio 80Hz - 5kHz (≤8dB) Stereo FM Audio 20Hz - 20kHz (≤3dB)

(D)

TECHNISCHE DATEN

Netzspannung	Tension secteur 220 - 240 V, +/- 10%
Netzfrequenz	Fréquence 45 - 65 Hz
Leistungsaufnahme:	Puissance absorbée: mono 12.5 W during operatio HiFi 16 W during operation
Standby	mode veille normal mono 9.5 W HiFi 11 W
Standby mit geringem Verbrauch	mode veille faible consommation .. < 6 W standby
Raumtemperatur	Température ambiante +10°C to +35°C
Relative Luftfeuchtigkeit	Humidité relative 20 - 80 %
Abmessungen	Encombrement 380 x 260 x 94 mm
Gewicht	Poids 3,7 kg
Vor-/Rückspulzeit (turbo)	Temps (re-)bobinage (turbo) typ. 100s (E180 cass.)
Betriebslage	Position d'emploi horizontally, max. 15°
Video-Auflösung	Puissance absorbée ≥240 lines
Audio	Audio SP: Linear Audio 80Hz - 10kHz (≤8dB) Audio LP: Linear Audio 80Hz - 5kHz (≤8dB) Stereo FM Audio 20Hz - 20kHz (≤3dB)

(F)

CARACTERISTIQUES

Tension secteur	220 - 240 V, +/- 10%
Fréquence	45 - 65 Hz
Puissance absorbée:	mono 12.5 W during operatio HiFi 16 W during operation
mode veille normal	mono 9.5 W HiFi 11 W
mode veille faible consommation ..	< 6 W standby
Température ambiante	+10°C to +35°C
Humidité relative	20 - 80 %
Encombrement	380 x 260 x 94 mm
Poids	3,7 kg
Temps (re-)bobinage (turbo)	typ. 100s (E180 cass.)
Position d'emploi	horizontally, max. 15°
Puissance absorbée	≥240 lines
Audio SP: Linear Audio	80Hz - 10kHz (≤8dB)
Audio LP: Linear Audio	80Hz - 5kHz (≤8dB)
Stereo FM Audio	20Hz - 20kHz (≤3dB)

(NL)

TECHNISCHE GEGEVENS

Netspanning	Tensión de red
Netfrequentie	Frecuencia de red
Opgenomen vermogen:	Consumo de potencia:
zonder Low Power Standby	sin standby de bajo consumo
met Low Power Standby	con standby de bajo consumo
Omgevingstemperatuur	Temperatura ambiente
Relatieve vochtigheid	Humedad relativa
Afmetingen	Dimensiones
Gewicht	Peso
Vooruit/terugspoeltijd (turbo)	tiempo de (re-)bobinado (turbo)
Gebruikspositie	Posición de uso
Opplossend vermogen	Resolución video
Audio	Audio

(E)

DATOS TECNICOS

Tensión de red	Tensione di alimentazione 220 - 240 V
Frecuencia de red	Frequenza di rete 45 - 65 Hz
Consumo de potencia:	Potenza assorbita: mono 12.5 W during operation HiFi 16 W during operation
sin standby de bajo consumo	in attesa non a basso consumo .... mono 9.5 W during standby HiFi 11 W during standby
con standby de bajo consumo	in attesa a basso consumo ..... < 6 W standby
Temperatura ambiente	Temperatura ambiente +10°C to +35°C
Humedad relativa	Umiditá relativa 20 - 80 %
Dimensiones	Dimensioni 380 x 260 x 94 mm
Peso	Peso 3,7 kg
tiempo de (re-)bobinado (turbo)	Tempo di (ri-)avvolgimento (turbo) typ. 100s (E180 cass.)
Posición de uso	Posizione di funzionamento horizontally, max. 15°
Resolución video	Risoluzione video ≥240 lines
Audio	Audio SP: Linear Audio 80Hz - 10kHz (≤8dB) Audio LP: Linear Audio 80Hz - 5kHz (≤8dB) Stereo FM Audio 20Hz - 20kHz (≤3dB)

(I)

DATI TECNICI

Tensione di alimentazione	220 - 240 V
Frequenza di rete	45 - 65 Hz
Potenza assorbita:	mono 12.5 W during operation HiFi 16 W during operation
in attesa non a basso consumo	mono 9.5 W during standby HiFi 11 W during standby
in attesa a basso consumo	< 6 W standby
Temperatura ambiente	+10°C to +35°C
Umiditá relativa	20 - 80 %
Dimensioni	380 x 260 x 94 mm
Peso	3,7 kg
Tempo di (ri-)avvolgimento (turbo)	typ. 100s (E180 cass.)
Posizione di funzionamento	horizontally, max. 15°
Risoluzione video	≥240 lines
Audio SP: Linear Audio	80Hz - 10kHz (≤8dB)
Audio LP: Linear Audio	80Hz - 5kHz (≤8dB)
Stereo FM Audio	20Hz - 20kHz (≤3dB)

Euroconnector (AV1) SCART plug 1

Connection to TV, monitor, projection TV ...

Pin 1	ARO (audio right out)	500 mV_{rms} +/- 3 dB	R_{out} 1 kOhm
Pin 2	ARI (audio right in)	0,2 V_{rms} to 2V_{rms}	R_{in} 10 kOhm
Pin 3	ALO (audio left out)	500 mV_{rms} +/- 3 dB	R_{out} 1 kOhm
Pin 6	ALI (audio left in)	0,2 V_{rms} to 2 V_{rms}	R_{in} 10 kOhm
Pin 7	Blue (out) **)		
Pin 8	Switching output:	(with R_{load} = 10kOhm, C_{load} < 2nF) low: 2 V high: 9.5 V rise time: 5 ms	
Pin 11	Green (out) **)		
Pin 15	Red (out) **)		
Pin 16	Blanking (out) **)	loop through enabled during standby, view-mode	
Pin 19	CVBS II (video out)	1 V_{pp} +1/-2dB	R_{out} 75 Ohm
Pin 20	CVBS I (video in)	1 V_{pp} +3/-3dB	R_{in} 75 Ohm

**) passive loop through from AV2

Euroconnector (AV2) SCART plug 2

Connection to decoder, SAT tuner, video disc, 2nd VCR ....

Pin 1	ARO (audio right out)	500 mV_{rms} +/- 3 dB	R_{out} 1 kOhm
Pin 2	ARI (audio right in)	0,2 V_{rms} to 2 V_{rms}	R_{in} 10 kOhm
Pin 3	ALO (audio left out)	500 mV_{rms} +/- 3 dB	R_{out} 1 kOhm
Pin 6	ALI (audio left in)	0,2 V_{rms} to 2 V_{rms}	R_{in} 10 kOhm
Pin 7	Blue (in) *)		
Pin 8	Switching input only	low: 2 V (low) high: 4.5 V (high)	R_{in} 10 kOhm R_{in} 10 kOhm
Pin 11	Green (in) *)		
Pin 15	Red (in) *)		
Pin 16	Blanking (in) *)	loop through enabled during standby, view-mode	
Pin 19	CVBS II (video out)	1 V_{pp} +1/- 2dB	R_{out} 75 Ohm
Pin 20	CVBS I (video in)	1 V_{pp} +3/-3 dB	R_{in} 75 Ohm

*) passive loop through to Euroconnector AV1

Cinch Audio/Video input on front panel (OPTION)

Audio:

AINFR (audio right in) red	0.2 V_{rms} to 2 V_{rms}	typ. 500 mV_{rms}
AINFL (audio left in) white	0.2 V_{rms} to 2 V_{rms}	typ. 500 mV_{rms}
Input impedance	47 kOhm	

Video:

VFR yellow	1 V_{pp} + 3 / -3 dB
Input impedance	75 Ohm

Cinch Audio Out Rear (OPTION)

AOUT1R (audio right out) red	500 mV_{rms} +/- 3 dB R_{out} 1 kOhm
AOUT1L (audio left out) white	500 mV_{rms} +/- 3 dB R_{out} 1 kOhm

This outputs are in parallel with the corresponding outputs on Euroconnector 1.

TUMOD

Modulator:

Frequency range loop through	45 MHz - 860 MHz
Gain: ANT IN - TV OUT	2 dB + 3 -2 dB
ANT IN - TUN OUT	2 dB + 3 -2 dB
Switch for RF input attenuation	NO
Frequency range out (tuned by IIC bus)	Ch 21 - Ch55

Tuner:

Frequency range	43 MHz - 860 MHz
	for UK 450 MHz - 860MHz
Input voltage max.	< 100 dBµV
min.	> 60 dBµV

Safety instructions

- Safety regulations demand that the set be restored to its original condition and that components identical with the original types be used.

  Safety components are marked by the symbol ⚠

- All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair may reduce life drastically. When repairing, make sure that you are conneted with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools on the same potential.
- A set to be repaired should always be connected to the mains via a suitable isolating transformer.
- Never replace any modules or any other parts while the set is switched on.
- Use plastic instead of metal alignment tools. This in order to prelude short-circuit or to prevent a specific circuit from being rendered unstable.

Remarks

- The direct voltages and oscillograms ought to be measured relative to the set mass.
  EXCEPTION
  At the power supply, the DC voltages and the oscillograms at the primary side are measured to LIVE GND.
- The direct voltages and oscillograms mentioned in the diagrams ought to be measured with a colour bar signal and the picture carrier at 503.25 MHz (C25).
- The oscillograms and direct voltages have been measured in RECORD or PLAY mode.
- The semiconductors, which are mentioned in the circuit diagram and in the parts lists, are fully exchangeable per position with the semiconductors in the set, irrespective of the type designation of these semiconductors.

Sicherheitshinweise

- Die Sicherheitsvorschriften erfordern es, daß sich das Gerät nach der Reparatur in seinem originalen Zustand befindet und daß die zur Reparatur benutzten Ersatzteile mit den Originalersatzteilen identisch sind.

  Sicherheits-Bauteile sind mit der Markierung ⚠ versehen

- Alle IC's und Halbleiter sind empfindlich gegen elektrostatische Entladungen (ESD). Unvorschriftmässige Behandlung von Halbleitern im Reparaturfall kann zur Zerstörung dieser Bauteile oder zu einer drastischen Reduzierung der Lebensdauer führen. Sorgen Sie dafür, daß Sie sich im Reparaturfall über ein Armband mit Widerstand auf dem gleichen Potential, wie die Masse des Gerätes befinden. Alle Bauteile, Werkzeuge und Hilfsmittel sind auf das gleiche Potential zu legen.
- Ein zu reparierendes Gerät ist immer über einen Trenntransformator an die Netzspannung anzuschließen.
- Bei eingeschaltetem Gerät dürfen keine Module oder sonstige Einzelteile ausgetauscht werden.
- Zum Abgleich sind ausschließlich Kunststoffwerkzeuge zu benutzen (keine Metallwerkzeuge verwenden). Dadurch wird vermieden, daß ein Kurzschluß entstehen kann oder eine Schaltung instabil wird.

Anmerkungen

- Die Gleichspannung und Oszillogramme sind gegen Gerätemasse zu messen.
  AUSNAHME
  Beim Netzteil sind die Gleichspannungen und Oszillogramme auf der Primärseite gegen Live GND gemessen.
- Die Gleichspannungen und Oszillogramme angeführt in den Schaltbildern sollen unter folgenden Bedingungen gemessen werden: Farbbalkensignal, Bildträger auf 503.25 MHz (C25)
- Die Oszillogramme und Gleichspannungen sind in RECORD oder PLAY gemessen. Die in den Stücklisten aufgeführten Bauteile sind positionsweise voll auswechselbar gegen die Bauteile in dem Gerät, ungeachtet der etwaigen Typenbezeichungen.

Avertissements

- Les normes de sécurité exigent qu'aprés réparation l'appareil soit remis dans son état d'origine et que soient utilisées les piéces de rechange identiques à celles spécifiées.

  Les composants de sécurité sont marqués ⚠

- Tout les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharger statiques (ESD). Leur longévité pourrait étre considérablement écourté par le fait qu'aucune précaution n'est prise à leur manipulation. Lors de réparations s'assurer de bien étre relié au méme potential que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité. Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.
- Toujours alimenter un appareil à réparer à travers un transfo d'isolement.
- Ne jamais remplacer les modules ni d'autres composants quand l'appareil est sous tension.
- Pour l'ajustage, utiliser des outils en plastique au lieu d'instruments métalliques. Ceci afin d'éviter les court-circuits et exclure l'instabilité dans certains circuits.

Observations

- La mésure des tensions continues et des oscillogrammes doit se faire par rapport à la terre de l'appareil.
  EXCEPTION
  Sur l'unité d'alimentation la tension continue et l'oscillogramme sont mesurés sur le côte primaire en Live GND.
- La mésure des tensions continues et des oscillogrammes figurant sur le schéma doit se faire dans un signal de barre couleur porteuse image sur 503.25 MHz (C25).
- Les oscillogrammes et tension sont mésurées en mode RECORD ou PLAY.
- Les semi-conducteurs indiqués dans le schéma de principe et à la liste des compostants, sont interchangeables par repère sur ce chassis avec les semi-conducteurs de l'appareil quelle que soit la désignation de type donnée sur ces semi-conducteurs.

Veiligheidsinstructies

- Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, indentiek aan de oorspronkelijke, worden toegepast.
  De veiligheidsonderdelen zijn aangeduid met het symbool
  ⚠
- Alle IC's en vele andere halfgeleiders zijn gevoelig voor elektrostatische ontladingen (ESD). Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen. Zorg ervoor, dat U tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat. Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.
- Sluit een apparaat dat gerepareerd wordt altijd via een scheidingstransformator aan op de netspanning.
- Verwissel nooit modules of andere onderdelen terwijl het apparaat is ingeschakeld.
- Gebruik voor het afregelen plastic i.p.v metalen gereedschap. Dit om mogelijke kortsluiting te voorkomen of een bepaalde schakeling instabiel te maken.

Opmerkingen

- De gelijksspanningen en oscillogrammen dienen gemeten te worden ten opzichte van de apparaat aarde.
- De gelijksspanningen en oscillogrammen vermeld in de schema's dienen gemeten te worden met een kleurbalkensignaal beelddraaggolf op 503.25 MHz (C25).
- De oscillogrammen en gelijksspanningen zijn in RECORD of PLAY mode gemeten.
- De halfgeleiders, die in het pricipeschema en in de stuklijsten, zijn vermeld, zijn per positie volledig uitwisselbaar met de halfgeleiders in het apparaat, ongeacht de typeaanduiding op deze halfgeleiders.

Avvertimenti

- Le prescrizioni di sicurezza richiedono che l'apparecchio sia ricondotto alle condizioni originali e che siano usati ricambi originali.

  Componenti di sicurezza sono marcati con ⚠

- Tutti gli IC e semiconduttori sono sensibili a scariche elettrostatiche (ESD). Noncuranze durante la riparazione di semiconduttori possono danneggiarli o condurre ad una riduzione drastica della durata. Durante la riparazione assicurarsi di essere collegati allo stesso potenziale attraverso un bracciale di protezione contro scariche elettrostatiche. Inoltre tenere anche tutti i componenti e gli attrezzi a questo potenziale.
- Apparecchi da riparare bisogna collegarli sempre via un trasformatore isolante (separatore) alla tensione normale.
- Non scambiare moduli o altri componenti quando l'apparecchio è in funzione.
- Per l'accordo usare soltanto attrezzi di plastica (non usare attrezzi metallici). Cosí si evitano cortocircuiti e collegamenti instabili.

Osservazioni

- Misurare le tensioni continue e gli oscillogrammi riferiendosi alla massa dell'apparecchio.
  ECCEZIONE
  Le tensioni continue e gli oscillogrammi dall'alimentatore sono misurati sulla parte primaria contro GND-Live.
- Le tensioni continue e gli oscillogrammi indicati negli schemi di collegamento devono essere misurati secondo le condizioni seguenti: segnale barre colore, portante dell'immagine su: 503.25 MHz (C25).
- Gli oscillogrammi e le tensioni continue sono misurati in RECORD o PLAYBACK.
- I componenti indicati nelle liste sono intercambiabili con quelli nell'apparecchio nonostante l'eventuale denominazione di modelli.

Avisos

- Las instrucciones de seguridad exigen que después de la reparación el aparato se encuentre en el estado original y que las piezas de repuesto, utilizadas para la reparación, sean idénticas a las originales.

  Los componentes de seguridad estan marcados con ⚠

- Todos los IC y semiconductores son sensibles a descargas electrostáticas (ESD). Un tratamiento no conforme a las instrucciones de semiconductores en caso de reparación, podría llevar a la destrucción de estos componentes, o a una reducción drástica de la duración. Tenga cuidado de que, en caso de reparación, estar al mismo potencial que la masa del aparato, por una pulsera con resistencia. Ponga todos los componentes, herramientas y recursos al mismo potencial.
- Para reparar un aparato hay que conectarlo siempre a la alimentación a traves de un transformador de aislamiento.
- Cuando un aparato está en marcha no pueden ser cambiados módulos u otras piezas de repuesto.
- Para los ajustes hay que utilizar exclusivamente herramientas de plástico (nunca herramientas metálicas). Así se evitaran cortocircuitos y circuitos inestables.

Notas

- Hay que medir las tensiones continuas y los oscilogramas contra la masa del aparato.
  UITZONDERING:
  Bij het netgedeelte zijn de gelijkspanningen en oscillogrammen aan de primaire kant tegen Live GND gemeten.
- Las tensiones continuas y los oscilogramas mencionados en los esquemas tienen que ser medidos de manera siguiente: señal barra de color portadora de imagen en 503.25MHz (C25)
- Los oscilogramas y las tensiones continuas son medidas en „RECORD" y „PLAYBACK"
- Los componentes mencionados en las listas se bs puede cambiar por los componentes en el aparato, a pesar de eventuales designaciones de tipos.

(GB) WARNING FOR LITHIUM BATTERIES!

Lithium batteries, if incorrectly used (excessive heat, wrong connection of terminals, short circuit represent a danger of explosion!
Lithium batteries must be replaced only by original spare parts.

(D) WARNHINWEIS ZU LITHIUM-BATTERIEN!

Bei fascher Handhabung (Überhitzung, Falschpolung oder Kurzschluß) der Lithium-Batterien besteht Explosionsgefahr!
Lithium-Batterien dürfen nur gegen Originalersatzteile getauscht werden.

(F) ATTENTION!

Pile au lithium.
Danger d'explosion si traitée incorrectement. Ne peut être remplacée que par un spécialiste (comme décrit dans les instructions de réparation).

(NL) OPGELET MET LITHIUM-BATTERIJEN!

Bij foutieve behandeling (oververhitting, foutieve poling of kortsluiting) van lithium-batterijen bestaat er explosiegevaar! Lithium-batterijen mogen slechts door originele onderelen vervangen worden.

(I) ATTENZIONE CON LE PILE AL LITIO!

In caso di utilizzo errato (surriscaldamento, errata posizione dei poli o cortocircuito) delle pile al litio consiste pericolo di esplosione! Le pile al litio si possone soltituire solo con pezzi di ricambio originali.

(E) AVISO!

Bateria de litio.
Por una inadecuada intervención puede explotar.
Solo debe ser cambiada por una persona con conocimientos técnicos (como en la guía de reparación se describe).

(DK) ADVARSEL!

Lithium batteri. Eksplosionsfare.
Udskiftning ma kun foretages af en sagkyndig, og om beskrevet in servicemanualen.

(S) VARNING!

Eksplosionsfara vid felaktigt batteribyte!
Använd samma batterityp eller ekvivalent typ som rekommenderas av apparattillverkaren.

(SF) VAROITUS!

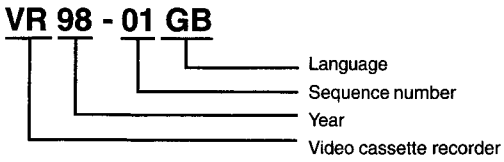
Paristo voi räjähtää, jos se on virheellisesti asennettu!
Vaihda paristo ainoastaan laitevalmistajan suosittelema an tyyppiin.

Modifications

Description of the system used for publishing modification data and supplements to the service manual.

All modification data and supplements to the Service Manual are published by means of Service Information bulletins.

Each Service information has a number, for example :



A Service Information bulletin concists of a front sheet, as the case may be followed by supplementary and/or replacement sheets.

Replacement sheets serve to replace existing sheets in the Service Manual. These sheets are identified by an additional letter after the page number, for example 5-1a. Page 5-1a then takes the place of page 5-1.

Supplementary sheets are inserted between the existing sheets in the Service Manual. These sheets can be identified by an additional figure following the page number, for example 5-1-1.

Sheet 5-1-1 should be inserted after page 5-1.

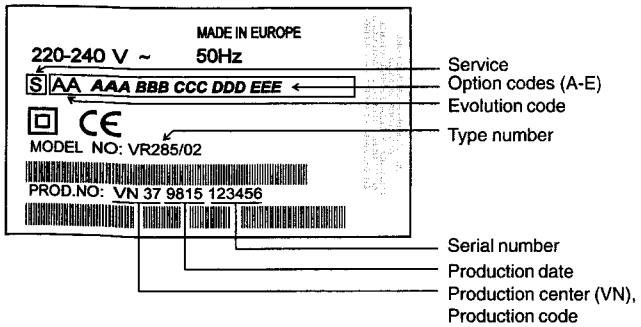
Description of the system by means of which modifications are indicated in the recorder.

All important parts of the recorder, such as tape deck, p.c. boards and modules, are provided with a sticker. These stickers specify a number of product data. The meaning of this data will now be explained for the most important sections.

The complete recorder

The type plate is located at the back of the recorder, below an example of such a type plate is given.

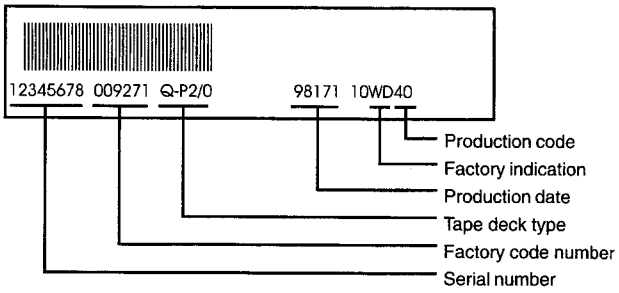
Type plate :



Note :

- In the case of an important modification to the recorder the production code on the type plate is increased by one. E.g. 37 becomes 38.
- In the case of an important modification to the service documentation the evolution code on the type plate is increased by one. E.g. AA becomes AB.

Tape deck



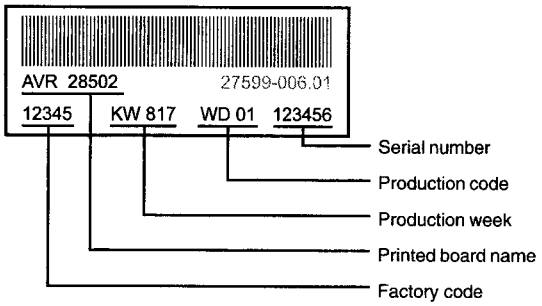
Note :

The production code and the serial number on the tape deck need not correspond to the production code and the serial number on the type plate.

Printed panels

The stickers are generally located on the track side of the module.

Example :



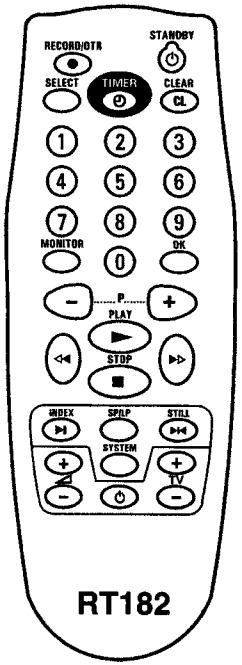
Remarks :

The production code number will not always be mentioned.

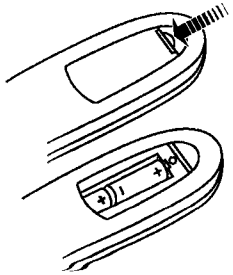
In case of an important modification, the last figure of the factory code number (point number) is increased by one. E.g. 6635.1 becomes 6635.2.

OPERATING INSTRUCTIONS IN BRIEF

The remote control



RT182



RECORD/OTR ● Record

STANDBY ⏻ Standby

SELECT Function selector

TIMER ⏲ 'VIDEOPlus' / 'TIMER' programming

CLEAR (CL) Reset, clear

0-9 Digit buttons 0-9

MONITOR TV monitor function

OK Confirm button

P− Down, number minus

P+ Up, number plus

PLAY ► Playback

◄◄ Rewind/Reverse scanning

►► Forward wind/ Forward scanning

STOP ■ Pause/Stop, Tuner-mode

INDEX ►| Index search

SP/LP SP/LP selection

STILL |◄◄ Still picture

SYSTEM Special function

Additional TV functions: Only function with televisions with the **same** remote control code.

TV volume plus

TV volume minus

⏻ Switch off TV

TV+ Programme number +

TV− Programme number -

Front of the video recorder

STANDBY ⏻ Standby

RECORD ● Record

PROGRAMME − Down/Minus, number

PROGRAMME + Up/Plus, number

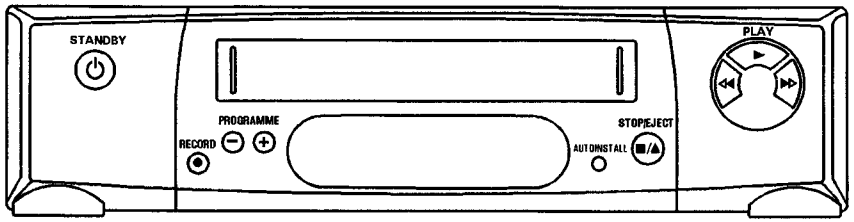
AUTOINSTALL Installation

STOP/EJECT ■/▲ Stop/Cassette eject

◄◄ Rewind/Reverse scanning

PLAY ► Playback

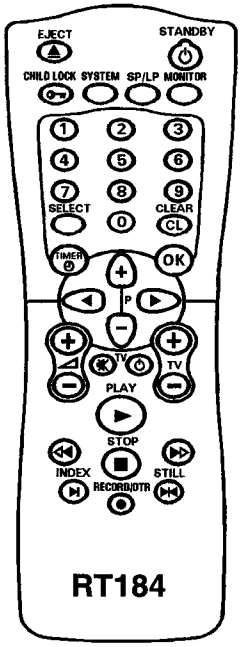
►► Forward wind/ Forward scanning

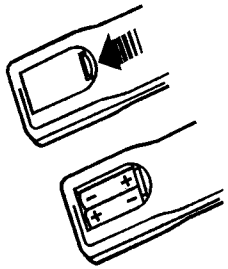


VR285, VR485, VR685

OPERATING INSTRUCTIONS IN BRIEF

The remote control





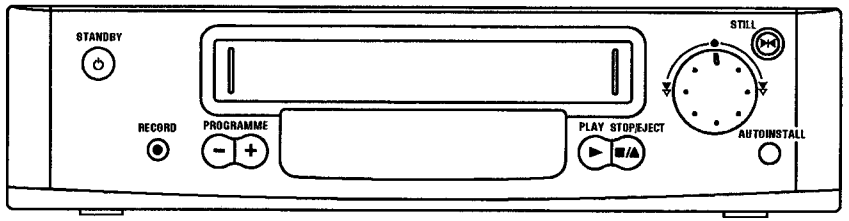
EJECT▲ Eject
STANDBY⏻ Standby
CHILD LOCK Child lock
SYSTEM Special function
SP/LP SP/LP selection
MONITOR TV monitor function
0-9 Digit buttons 0-9
SELECT Function selector
CLEAR (CL) Reset, clear
TIMER⏲ 'VIDEOPlus' / 'TIMER' programming
OK Confirm button
P+ Up/Plus, programme number
◀ Menu left
▶ Menu right
P− Down/Minus, programme number
PLAY▶ Playback
◁◀ Rewind/Reverse scanning
STOP■ Pause/Stop, Tuner-mode
▶▷ Forward wind/ Forward scanning
INDEX▶| Index search
RECORD/OTR● Record
STILL▶|◀ Still picture

Additional TV functions:

TV volume plus
TV volume minus
TV sound off
TV⏻ Switch off TV
TV+ Programme number +
TV− Programme number -

Front of the video recorder

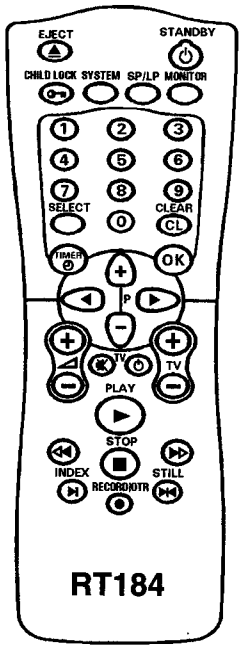
STANDBY⏻ Standby
RECORD● Record
PROGRAMME− Down/Minus, number
PROGRAMME+ Up/Plus, number
PLAY▶ Playback
STOP/EJECT■/▲ Stop/Cassette eject
SHUTTLE ON / STILL▶|◀ Still picture
Rotary control for Rewind/Reverse scanning or Forward wind/ Forward scanning
AUTOINSTALL Installation button

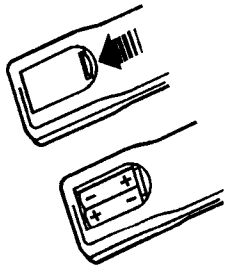


VR287, VR487

OPERATING INSTRUCTIONS IN BRIEF

The remote control





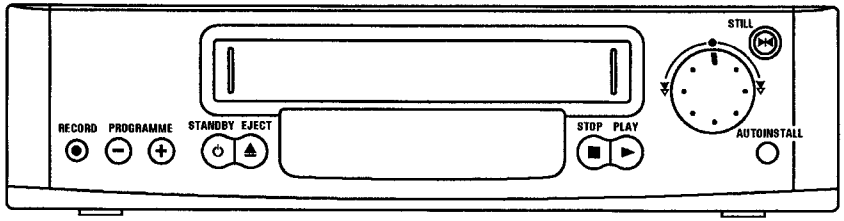
EJECT ▲ Eject
STANDBY ⏻ Standby
CHILD LOCK Child lock
SYSTEM Special function
SP/LP SP/LP selection
MONITOR TV monitor function
0-9 Digit buttons 0-9
SELECT Function selector
CLEAR (CL) Reset, clear
TIMER ⏻ 'VIDEOPlus' / 'TIMER' programming
OK Confirm button
P+ Up/Plus, programme number
◀ Menu left
▶ Menu right
P− Down/Minus, programme number
PLAY ▶ Playback
◀◀ Rewind/Reverse scanning
STOP ■ Pause/Stop, Tuner-mode
▶▶ Forward wind/ Forward scanning
INDEX ▶| Index search
RECORD/OTR ● Record
STILL ▶|◀ Still picture

Additional TV functions:

TV volume plus
TV volume minus
TV sound off
TV ⏻ Switch off TV
TV+ Programme number +
TV− Programme number -

Front of the video recorder

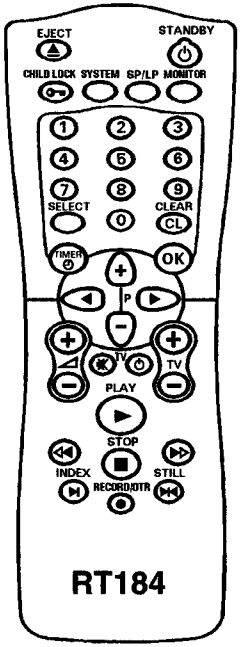
RECORD ● Record
PROGRAMME − Down/Minus, number
PROGRAMME + Up/Plus, number
STANDBY ⏻ Standby
EJECT ▲ Cassette eject
STOP ■ Pause/Stop
PLAY ▶ Playback
STILL ▶|◀ Still picture
Rotary control for Rewind/Reverse scanning or
Forward wind/ Forward scanning
AUTOINSTALL Installation button

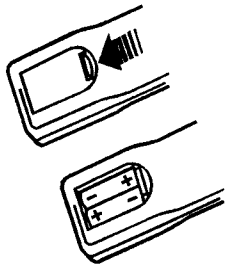


VR686

OPERATING INSTRUCTIONS IN BRIEF

The remote control





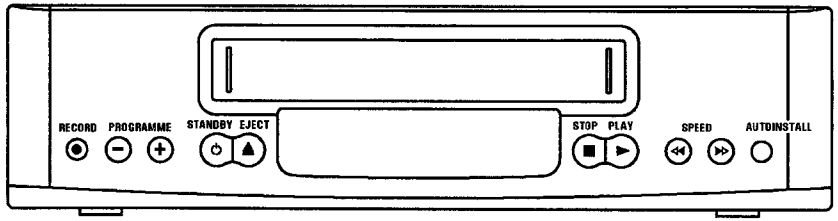
- EJECT ▲ Eject
- STANDBY ⏻ Standby
- CHILD LOCK 🔑 Child lock
- SYSTEM Special function
- SP/LP SP/LP selection
- MONITOR TV monitor function
- 0-9 Digit buttons 0-9
- SELECT Function selector
- CLEAR (CL) Reset, clear
- TIMER ⏲ 'VIDEOPlus' / 'TIMER' programming
- OK Confirm button
- P+ Up/Plus, programme number
- ◀ Menu left
- ▶ Menu right
- P− Down/Minus, programme number
- PLAY ▶ Playback
- ◀◀ Rewind/Reverse scanning
- STOP ■ Pause/Stop, Tuner-mode
- ▶▶ Forward wind/ Forward scanning
- INDEX ▶| Index search
- RECORD/OTR ● Record
- STILL ▶|◀ Still picture

Additional TV functions:

- TV volume plus
- TV volume minus
- TV 🔇 TV sound off
- TV ⏻ Switch off TV
- TV+ Programme number +
- TV− Programme number -

Front of the video recorder

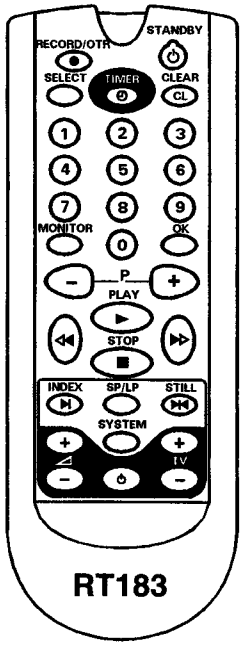
- STANDBY ⏻ Standby
- RECORD ● Record
- PROGRAMME − Down/Minus, number
- PROGRAMME + Up/Plus, number
- PLAY ▶ Playback
- STOP ■ Stop/Cassette eject
- SHUTTLE ON / STILL ▶|◀ Still picture
- Rotary control for Rewind/Reverse scanning or Forward wind/ Forward scanning
- AUTOINSTALL Installation button



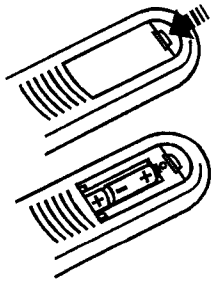
VR286

OPERATING INSTRUCTIONS IN BRIEF

The remote control



RT183



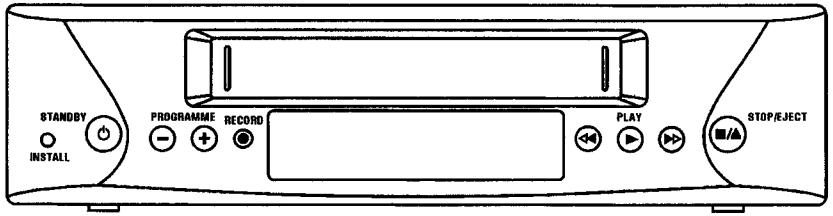
RECORD/OTR ● Record
STANDBY ⏻ Standby
SELECT Function selector
TIMER ⏻ 'VIDEOPlus' / 'TIMER' programming
CLEAR (CL) Reset, clear
0-9 Digit buttons 0-9
MONITOR TV monitor function
OK Confirm button
P− Down, number minus
P+ Up, number plus
PLAY ▶ Playback
◁◁ Rewind/Reverse scanning
▷▷ Forward wind/ Forward scanning
STOP ■ Pause/Stop, Tuner-mode
INDEX ▶| Index search
SP/LP SP/LP selection
STILL |◀◀ Still picture
SYSTEM Special function

Additional TV functions: Only function with televisions with the **same** remote control code.

◿+ TV volume plus
◿− TV volume minus
⏻ Switch off TV
TV+ Programme number +
TV− Programme number -

Front of the video recorder

INSTALL Installation button
⏻ Standby
PROGRAMME− Down/Minus, number
PROGRAMME+ Up/Plus, number
RECORD ● Record
◁◁ Rewind/Reverse scanning
PLAY ▶ Playback
▷▷ Forward wind/ Forward scanning
■/⏏ STOP/EJECT Stop/Cassette eject



SB110, SB115, SB615

List of abbreviations

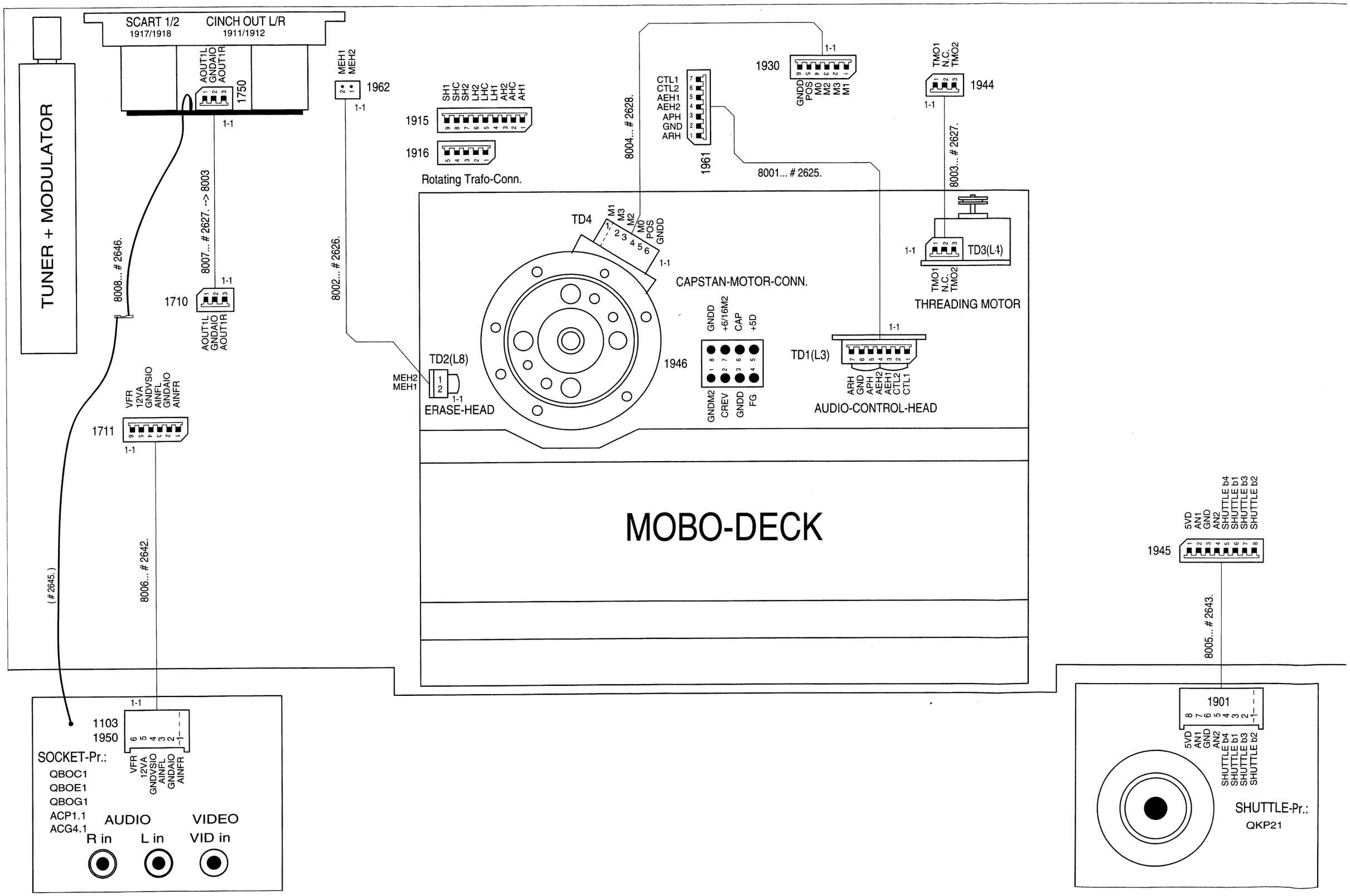
Signal	Description	Application										
+5AS	+5V analog after fuse 1700											QNIC
+5ASS	+5V digital, after coil 5706											QNIC
+5D	+5V digital			DE								QNIC
-28V	-28V display supply	PS			DC			IO				
-7V	-7V I/O-switches supply							IO				
12SW	+12V analog (< 6W switched)	PS					AL			FV			QNIC
12VA	+12V analog	PS						IO		FV	AF		
14VM1	+14V for threading- and headmotor	PS		DE								
2FSC	2x Colour subcarrier					VS						OS	
33V	+33V for tuner tuning voltage	PS								FV			
5VA	+5V analog	PS						IO		FV	AF	OS	
5VASW	+5V analog (< 6W switched)	PS	HA	DE		VS			SE	FV		OS	QNIC
5VASW2	+5V analog after coil 5802											OS	
5VASWB	+5V analog after coil 5726									FV			
5VD	+5V digital	PS		DE	DC					FV			
5VD1	+5V digital, after coil 5200				DC								
5VD2	+5V digital, after coil 5400			DE									
8SC1	Scart 1 pin 8 output			DE				IO					
8SC2	Scart 2 pin 8 input			DE				IO					
9/14VM2	Capstan motor supply, switched	PS		DE									
AEH1/2	Audio erase head						AL						
AF1	Audio from frontend, left						AL	IO		FV	AF		
AF2	Audio from frontend, right									FV	AF		
AFC	Automatic frequency control				DC					FV			
AFE	Audio from frontend									FV			QNIC
AGC	Automatic gain control			DE						FV			
AH1/2/C	Audio heads		HA										
AIN1	Audio input scart 1						AL	IO					
AIN1L	Audio input scart 1, left							IO			AF		
AIN1R	Audio input scart 1, right							IO			AF		
AIN2	Audio input scart 2						AL	IO					
AIN2L	Audio input scart 2, left							IO			AF		
AIN2R	Audio input scart 2, right							IO			AF		
AINFL	Audio left from Front connector							IO			AF		
AINFR	Audio right from front connector							IO			AF		
AMCO	Audio to the modulator									FV	AF		
AMLP	Audio mono playback						AL	IO		FV	AF		
AMLR	Audio mono record						AL	IO			AF		
AN1/2	Analog voltage from keyboard matrix				DC								
ANIL	NICAM Audio, left									FV			QNIC
ANIR	NICAM Audio, right									FV			QNIC
AOUT1L	Audio output from scart 1, left							IO			AF		
AOUT1R	Audio output from scart 1, right							IO			AF		
AOUT2L	Audio output from scart 2, left							IO			AF		
AOUT2R	Audio output from scart 2, right							IO			AF		
APH	Audio playback head						AL						
ARH	Audio record head						AL						
BLANKING	Blanking pulse RGB loopthrough							IO					
BLUE	Blue signal between scart 1/2							IO					
CAP	Capstan control voltage			DE									
CKDET	Colour system information			DE		VS							
CLKD1	Serial bus clock			DE	DC								
CREV	Capstan reverse			DE									
CROT	Colour rotation on/off			DE		VS							

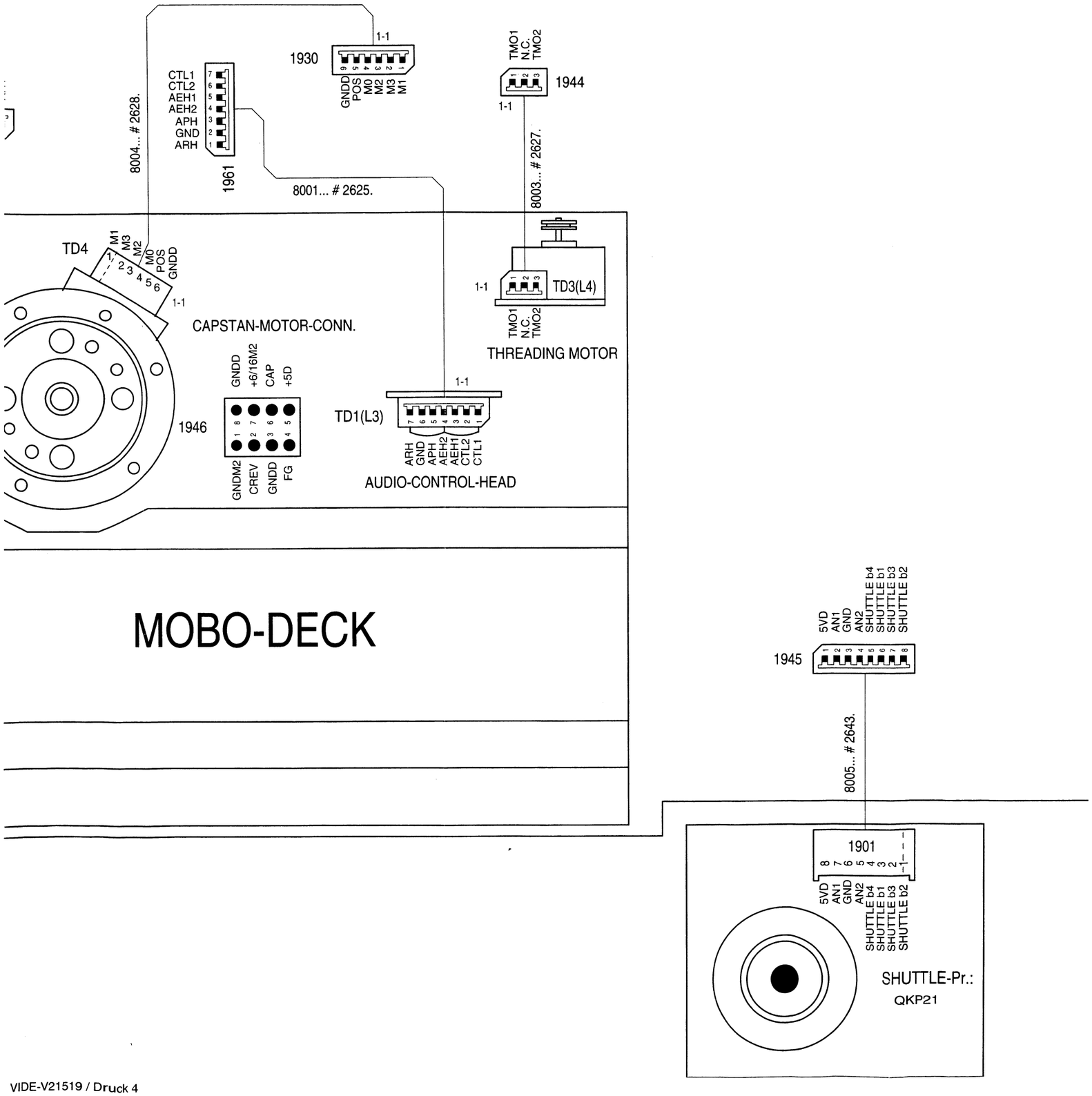
Signal	Description	Application											
CSCP	Colour phase switching for LP feature mode			DE		VS							
CSI	Colour system information			DE					SE				
CSP	Chrominance secam playback					VS			SE				
CSR	Chrominance secam record		HA						SE				
CSW	8V/14V switching for capstan motor	PS		DE									
CSYNC/1/2	Composite sync pulse		HA	DE		VS			SE			OS	
CTL1/2	Control track signal			DE			AL						
DATD1/2	Serial bus data			DE	DC								
DEC	Audio switching voltage							IO					
ENVC	Envelope comparator signal		HA	DE									
FFP	Feature frame pulse			DE		VS							
FG	Capstan tacho pulse			DE									
FGD	Capstan tacho pulse digital			DE									
FMAP	FM audio playback		HA								AF		
FMAR	FM audio record		HA								AF		
FMPV	FM video playback		HA			VS			SE				
FMRV	FM video record		HA			VS							
FOME	Follow Me (video signals equal)			DE								OS	
FTA	Threading tacho			DE									
FTAD	Threading tacho digital			DE									
GNDA	Ground analog							IO		FV			QNIC
GNDA1/A2	Ground analog QNIC												QNIC
GNDAF	Ground analog AF										AF		
GNDAIO	Ground analog IO							IO					
GNDAL	Ground analog AL						AL						
GNDD	Ground digital			DE				IO			AF		QNIC
GNDEO	Ground erase oscillator						AL						
GNDM	Ground capstan motor			DE									
GNDVS	Ground signal electronics										AF		
GNDVSIO	Ground analog VS, IO							IO					
GREEN	Green signal between scart1/2							IO					
HEHI	Heater for displaytube high	PS			DC								
HELO	Heater for displaytube low	PS			DC								
HEST	Heater voltage control signal				DC								
HP2	Head pulse audio		HA	DE							AF		
I/R	Deck switch / Record protection			DE									
ILED	LED-tower supply			DE									
INIT	Deck switch			DE									
IPOR	Inverse power on reset			DE	DC								
IRAF	Inverse record FM-audio		HA	DE									
IREV	Dubbing oscillator on/off			DE		VS	AL						
ISTBY	Inverse stand by	PS			DC								
ISWS	Video-FM mute			DE		VS							
IWIND	Control pulse amplification low			DE									
LH1/2/C	Long play heads		HA										
MEH1/2	Main erase head						AL						
MON	Monitor loop through scart 1/2							IO					
MOT0-3	Head motor Control lines			DE									
MTA	Audio mute			DE			AL						
NC	Not connected			DE									
OCLK	OSD-bus clock				DC							OS	
OCS	OSD chip select				DC							OS	
ODAT	OSD-bus data				DC							OS	
OFP	Frame pulse			DE								OS	

Signal	Description	Application											
PBV	Playback			DE					SE				
PG/FG	Head wheel position/-speed			DE									
POS	Position pulse headwheel			DE									
PSS	PAL or secam-L				DC					FV			
RECP	Record protection			DE									
RED	Red signal between scart 1/2							IO					
REEL	Head wheel control			DE									
SB1	Secam band 1				DC					FV			
SCL	IIC bus clock							IO		FV	AF	OS	QNIC
SCL2	Serial bus clock			DE		VS							
SDA	IIC bus data							IO		FV	AF	OS	QNIC
SDA2	Serial bus data			DE		VS							
SFS	Sound filter switch				DC					FV			
SH1/2/C	Standard play heads		HA										
SSIF	Second sound interfrequency									FV			QNIC
SWIN	Head switching pulse		HA	DE									
SYNC	Control track pulse			DE									
TAE	Tape end detection			DE									
TAS	Tape start detection			DE									
THIO	Threading motor in/out			DE									
TMO	Threading motor on/off			DE									
TMO1/2	Threading motor connection			DE									
TRIA/ALI	Tracking information audio / Audio level indication			DE							AF		
TRIV	Tracking information video		HA	DE									
VBS	Video input					VS		IO				OS	
VFR	Video from front connector							IO					
VFV	Video from frontend					VS		IO		FV		OS	
VIN1	Video input scart 1							IO					
VIN2	Video input scart 2							IO					
VISS	Control sync pulse inversion			DE									
VMOD	Video to the modulator							IO		FV			
VOUT	Video from OSD part							IO				OS	
VREC	Video record from I/O					VS			SE			OS	
VREF	Reference voltage								SE				
VSB	Video from signal electronics					VS						OS	
W/R	Control track write/read			DE									
WTL	Wind tacho left			DE									
WTLD	Wind tacho left digital			DE									
WTR	Wind tacho right			DE									
WTRD	Wind tacho right digital			DE									

PS ..... Power Supply ..... page 3-8
HA ..... Head Amplifier ..... page 3-9
DE ..... Deck Electronics ..... page 3-10
DC ..... Display Control ..... page 3-11
VS ..... Video Signal Processing ..... page 3-12
AL ..... Audio Linear ..... page 3-12
IO ..... In/Out ..... page 3-13
SE ..... Secam Processing ..... page 3-14
FV ..... Frontend ..... page 3-15
AF ..... Audio Processing ..... page 3-16
OS ..... On Screen Display ..... page 3-17
QNIC ... Nicam Board ..... page 3-18

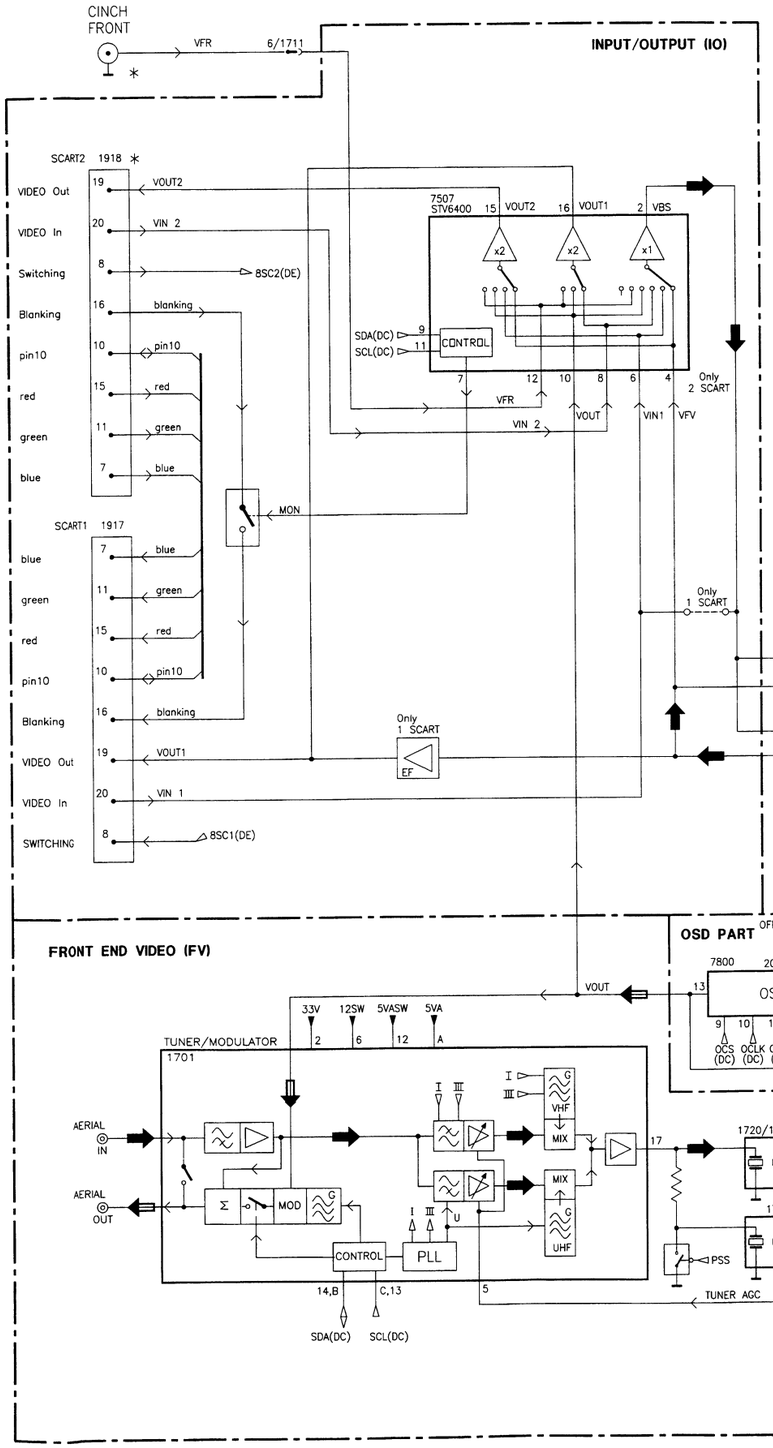
Wiring Diagram

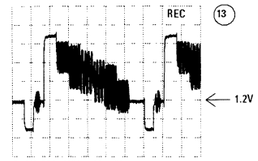



MOBO-DECK
1930
1-1
GNDD
POS
M0
M2
M3
M1
1961
CTL1
CTL2
AEH1
AEH2
APH
GND
ARH
8004... # 2628.
8001... # 2625.
1944
TMO1
N.C.
TMO2
8003... # 2627.
TD4
M1
M3
M2
M0
POS
GNDD
CAPSTAN-MOTOR-CONN.
TD3(L4)
THREADING MOTOR
1946
GNDD
+6/16M2
CAP
+5D
GNDM2
CREV
GNDD
FG
TD1(L3)
ARH
GND
APH
AEH2
AEH1
CTL2
CTL1
AUDIO-CONTROL-HEAD
1945
5VD
AN1
GND
AN2
SHUTTLE b4
SHUTTLE b1
SHUTTLE b3
SHUTTLE b2
8005... # 2643.
1901
SHUTTLE-Pr.:
QKP21

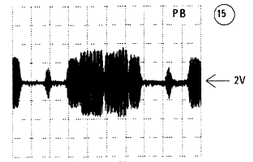
Block Diagram Video

3-2

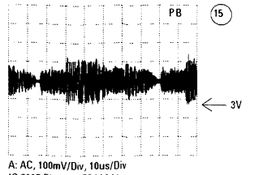




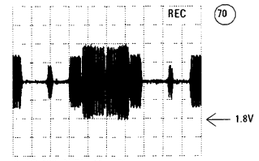
A: AC, 200mV/Div, 10us/Div
IC 7540 Pin 13



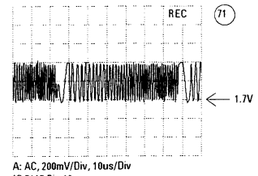
A: AC, 100mV/Div, 10us/Div
IC 7007 Pin 46 (PAL)



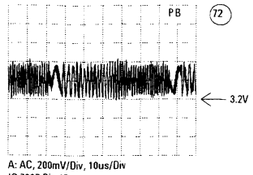
A: AC, 100mV/Div, 10us/Div
IC 7007 Pin 46 (SECAM L)



A: AC, 100mV/Div, 10us/Div
IC 7007 Pin 14



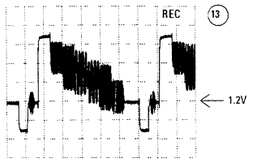
A: AC, 200mV/Div, 10us/Div
IC 7007 Pin 18



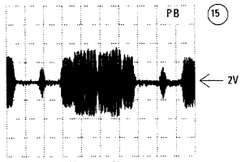
A: AC, 200mV/Div, 10us/Div
IC 7007 Pin 15

Interc

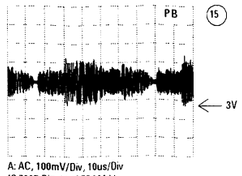
AF pa
I/O pa



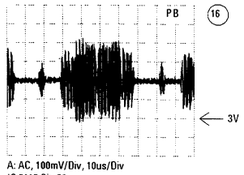
A: AC, 200mV/Div, 10us/Div
IC 7540 Pin 13



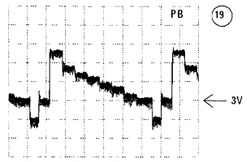
A: AC, 100mV/Div, 10us/Div
IC 7007 Pin 46 (PAL)



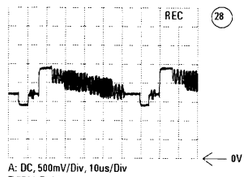
A: AC, 100mV/Div, 10us/Div
IC 7007 Pin 46 (SECAM L)



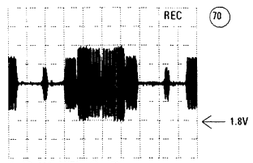
A: AC, 100mV/Div, 10us/Div
IC 7007 Pin 52



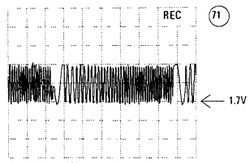
A: AC, 500mV/Div, 10us/Div
IC 7007 Pin 40



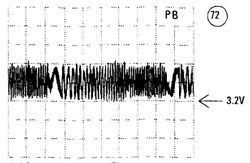
A: DC, 500mV/Div, 10us/Div
T 7730 Emitter



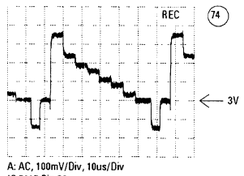
A: AC, 100mV/Div, 10us/Div
IC 7007 Pin 14



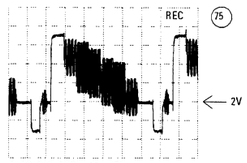
A: AC, 200mV/Div, 10us/Div
IC 7007 Pin 18



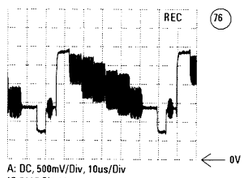
A: AC, 200mV/Div, 10us/Div
IC 7007 Pin 15



A: AC, 100mV/Div, 10us/Div
IC 7007 Pin 26



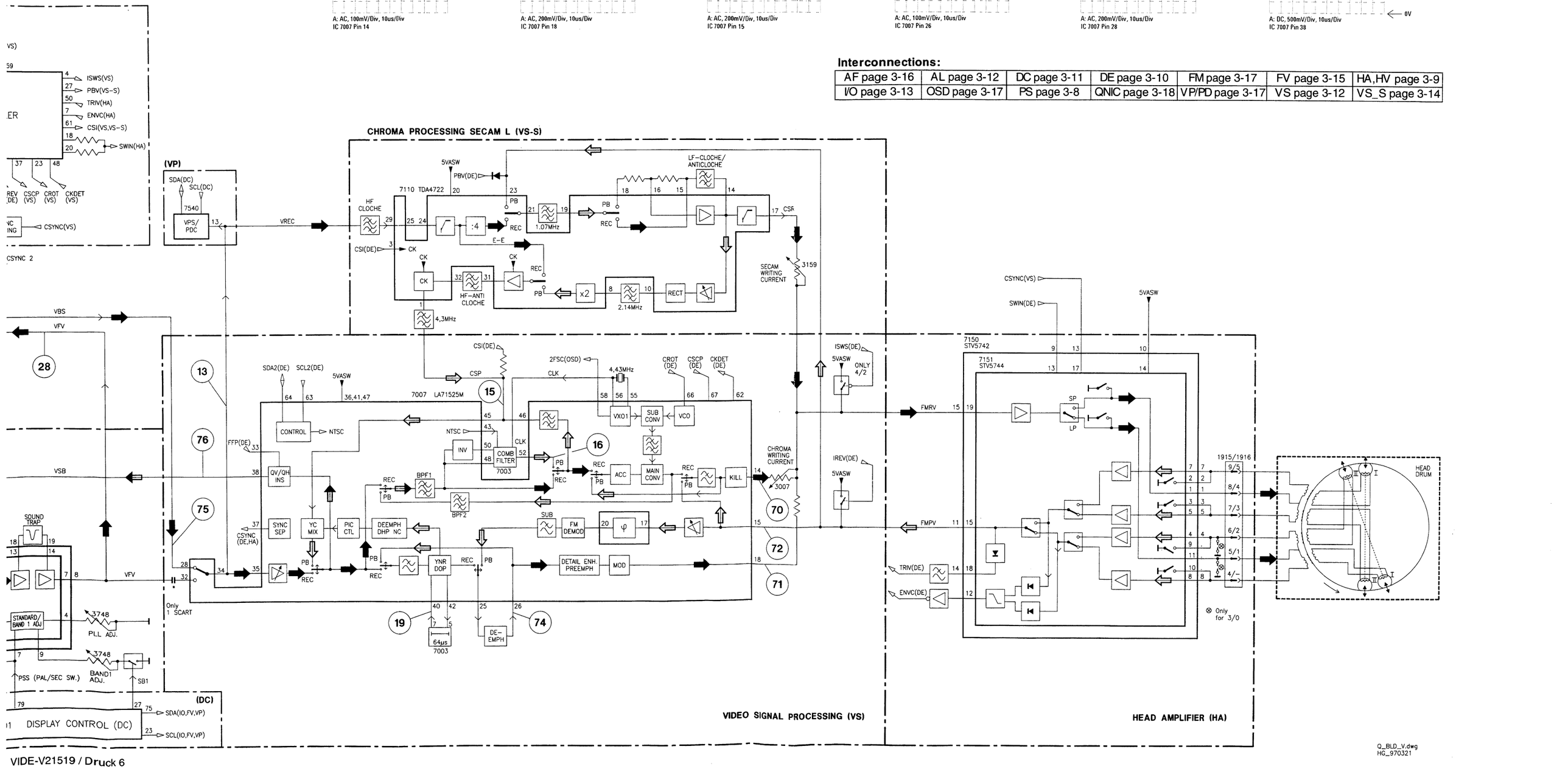
A: AC, 200mV/Div, 10us/Div
IC 7007 Pin 28



A: DC, 500mV/Div, 10us/Div
IC 7007 Pin 38

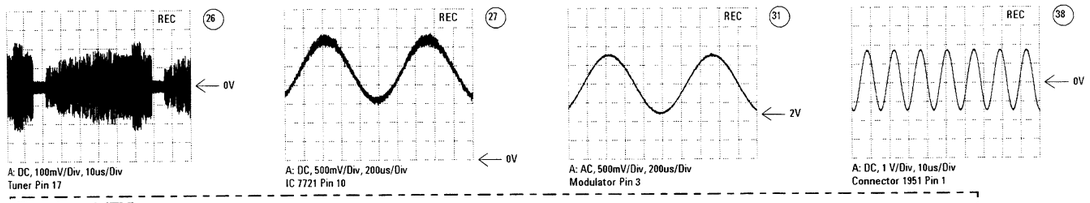
Interconnections:

AF page 3-16	AL page 3-12	DC page 3-11	DE page 3-10	FM page 3-17	FV page 3-15	HA,HV page 3-9
I/O page 3-13	OSD page 3-17	PS page 3-8	QNIC page 3-18	VP/PD page 3-17	VS page 3-12	VS_S page 3-14



Q_BLD_V.dwg
HG_970321

Block Diagram Audio Mono



Interconnections:

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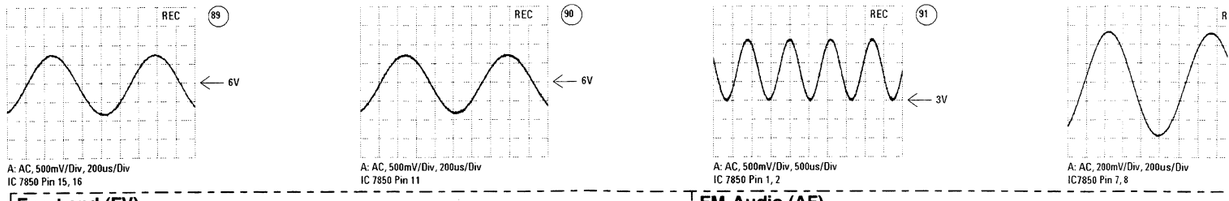
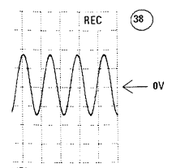
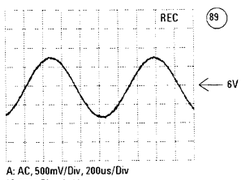
Block Diagram Audio Stereo

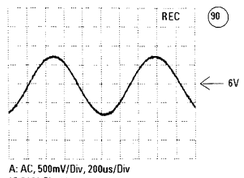


Block Diagram Audio Stereo

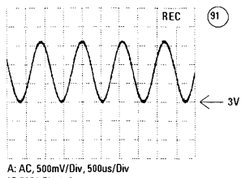




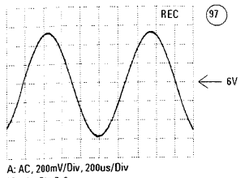
A: AC, 500mV/Div, 200us/Div
IC 7850 Pin 15, 16



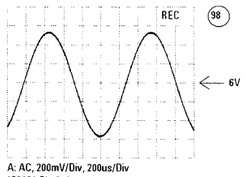
A: AC, 500mV/Div, 200us/Div
IC 7850 Pin 11



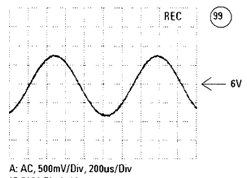
A: AC, 500mV/Div, 500us/Div
IC 7850 Pin 1, 2



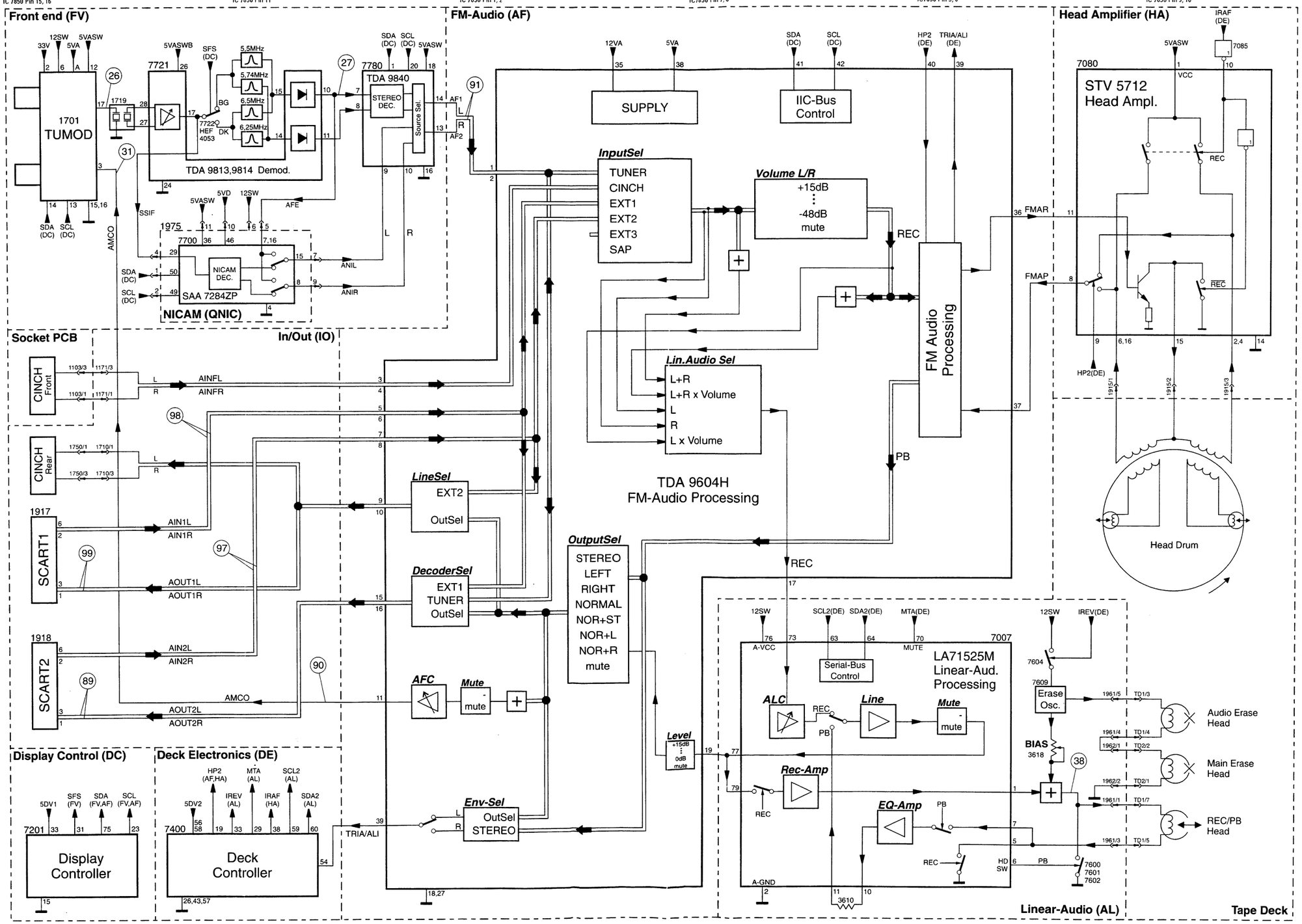
A: AC, 200mV/Div, 200us/Div
IC7850 Pin 7, 8



A: AC, 200mV/Div, 200us/Div
IC7850 Pin 5, 6



A: AC, 500mV/Div, 200us/Div
IC 7850 Pin 9, 10



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Block Diagram Digital

TAPE-DECK QMB DE,DC-PART

CAPSTAN MOTOR UNIT

TVC DECK CONTROLLER

HEAD MOTOR DRIVER

HEAD-DISC MOTOR

CTL PROCESSING

OPTION

Interconnections
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SUPPLY VOLTAGES AND BUS DIAGRAM

BLOCK DIAGRAM AUDIO

BLOCK DIAGRAM VIDEO

QBD_DIG.DWG PIC 970217

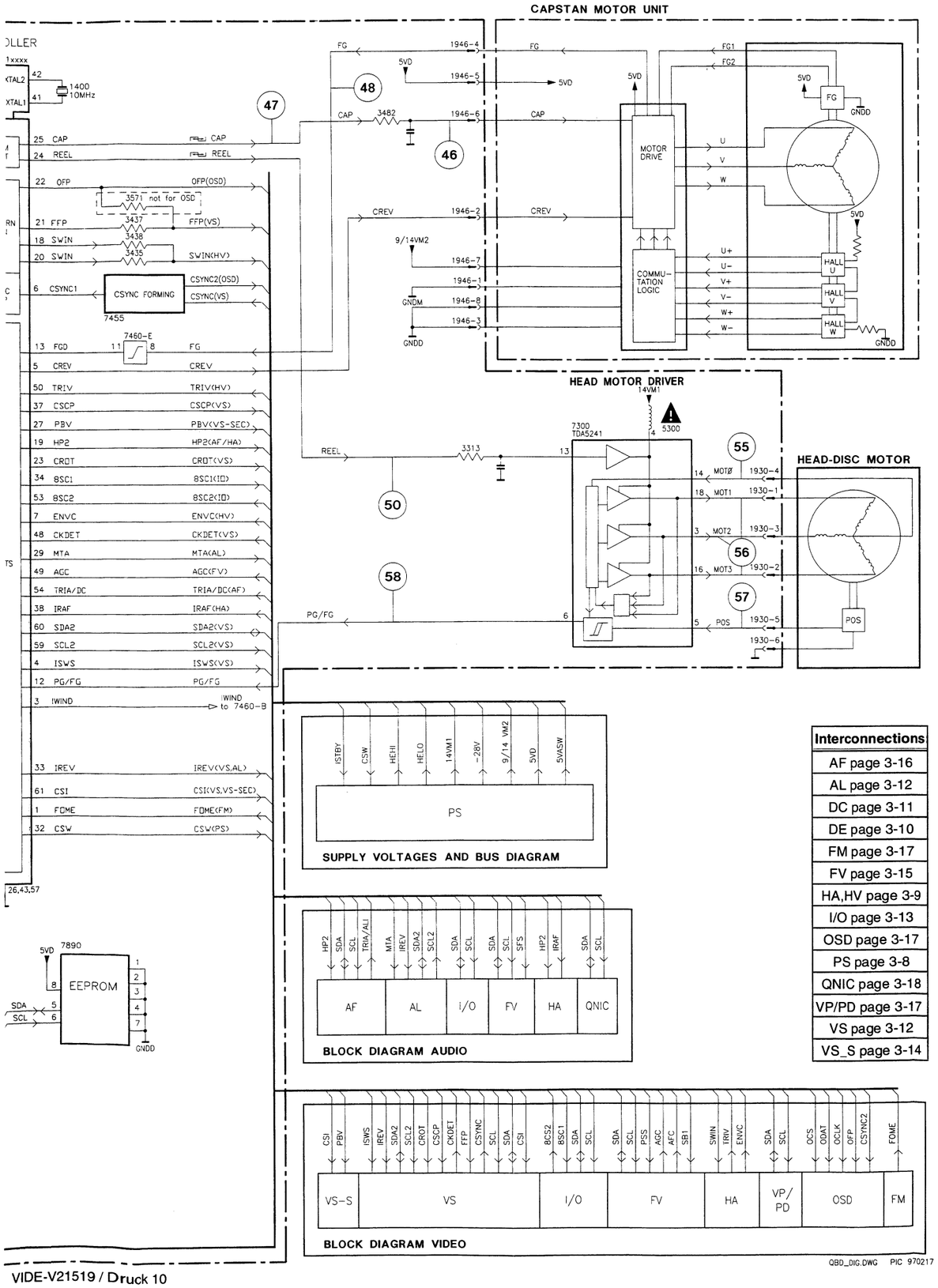
A: DC, 1 V/Div, 5
T 7463 Emitter

A: DC, 500mV/Div
Connector 1930

A: DC, 1 V/Div, 1
IC 7460 Pin 2

A: DC, 500mV/Div
Connector 1930

A: DC, 2 V/Div, 1
Connector 1930



Interconnections
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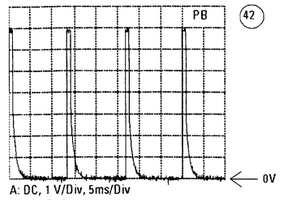
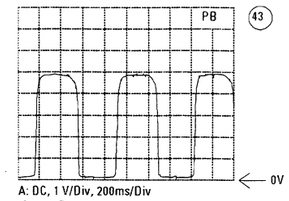
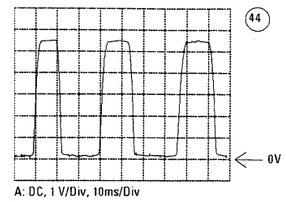


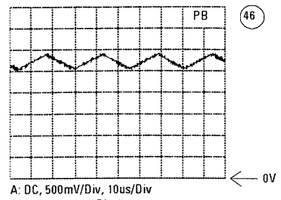
A: DC, 1 V/Div, 5ms/Div
T 7463 Emitter



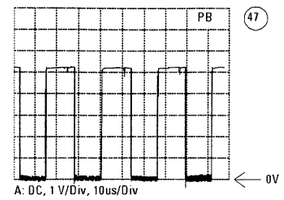
A: DC, 1 V/Div, 200ms/Div
IC 7460 Pin 6, 7



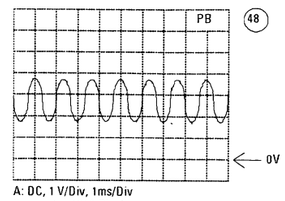
A: DC, 1 V/Div, 10ms/Div
7466



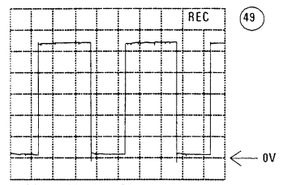
A: DC, 500mV/Div, 10us/Div
Connector 1930 Pin 6



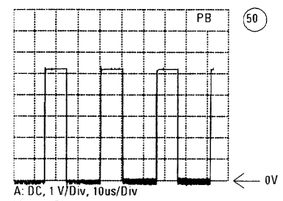
A: DC, 1 V/Div, 10us/Div
IC 7400 Pin 25



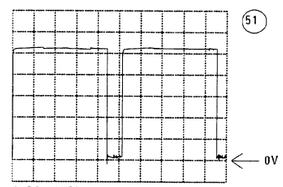
A: DC, 1 V/Div, 1ms/Div
Connector 1946 Pin 4



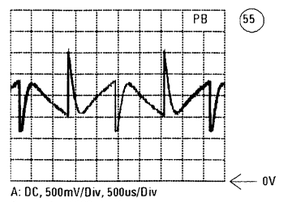
A: DC, 1 V/Div, 10ms/Div
IC 7460 Pin 2



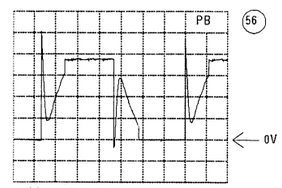
A: DC, 1 V/Div, 10us/Div
IC 7400 Pin 24



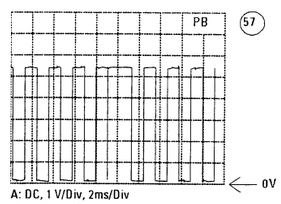
A: DC, 1 V/Div, 10us/Div
IC 7400 Pin 10



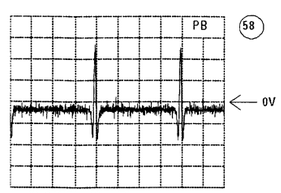
A: DC, 500mV/Div, 500us/Div
Connector 1930 Pin 4



A: DC, 2 V/Div, 1ms/Div
Connector 1930 Pin 1, 2, 3

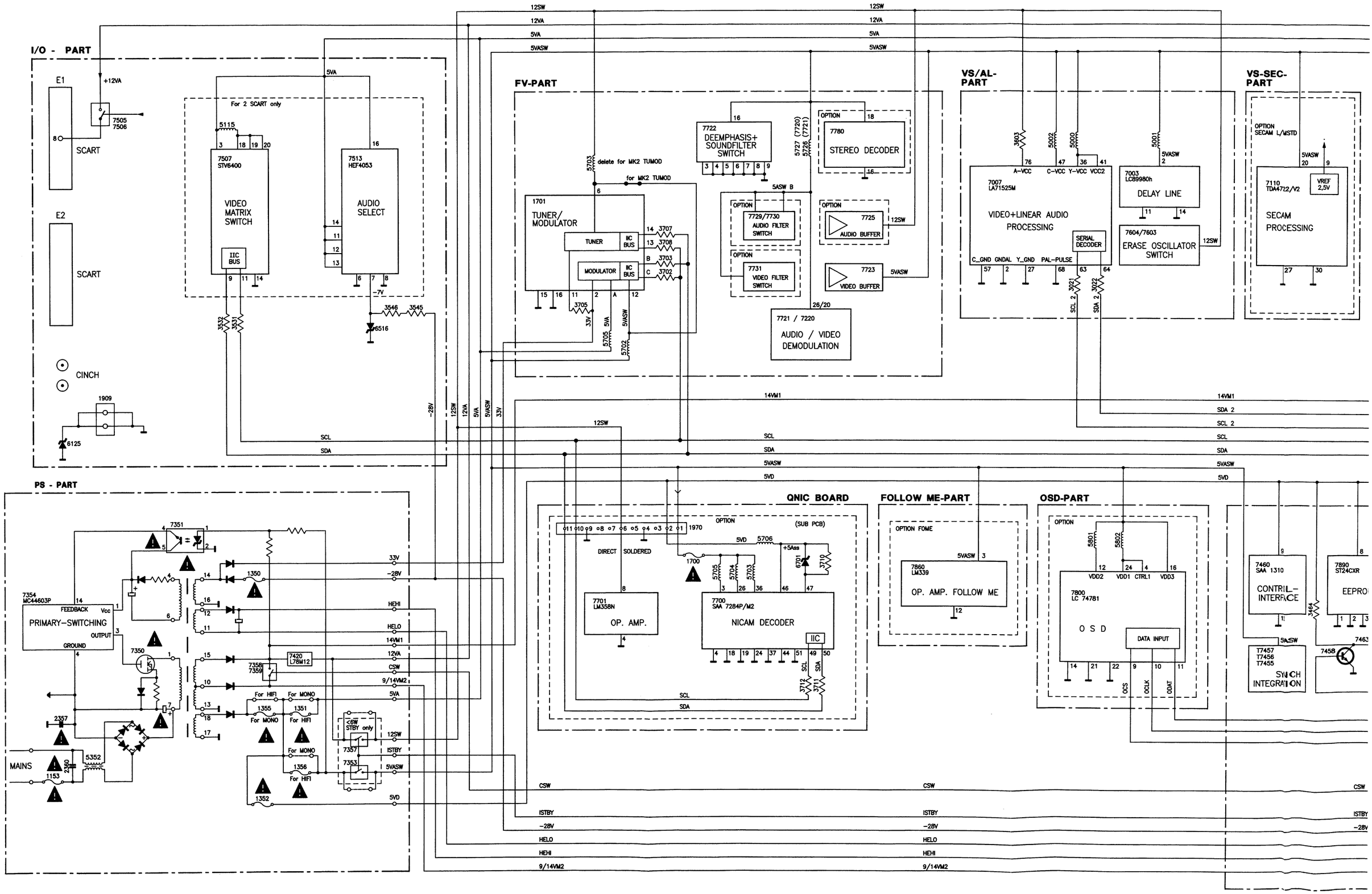


A: DC, 1 V/Div, 2ms/Div
IC 7400 Pin 12



A: DC, 2 V/Div, 10ms/Div
Connector 1930 Pin 5

Supply Voltages and Bus Diagram



Interconnections:

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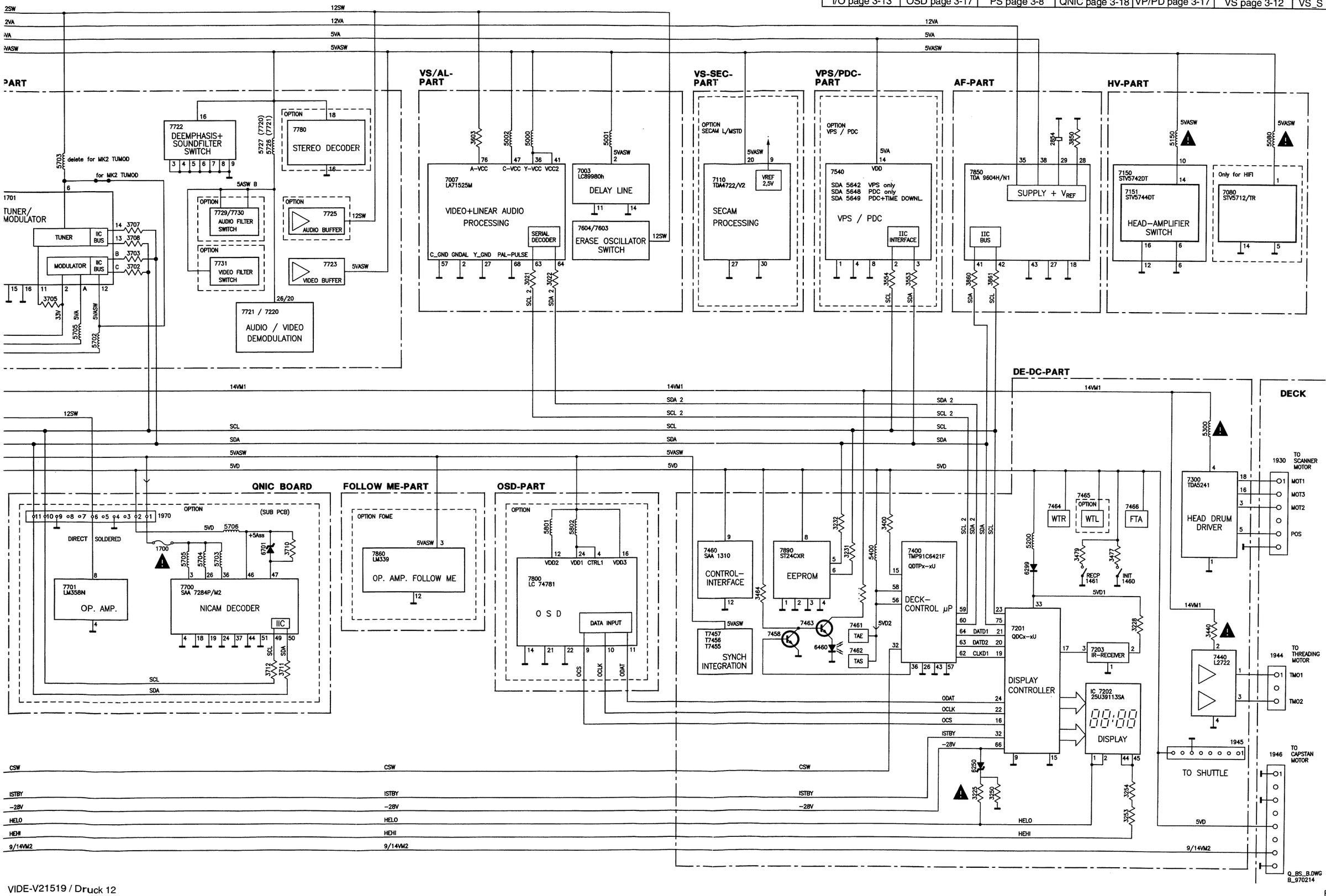
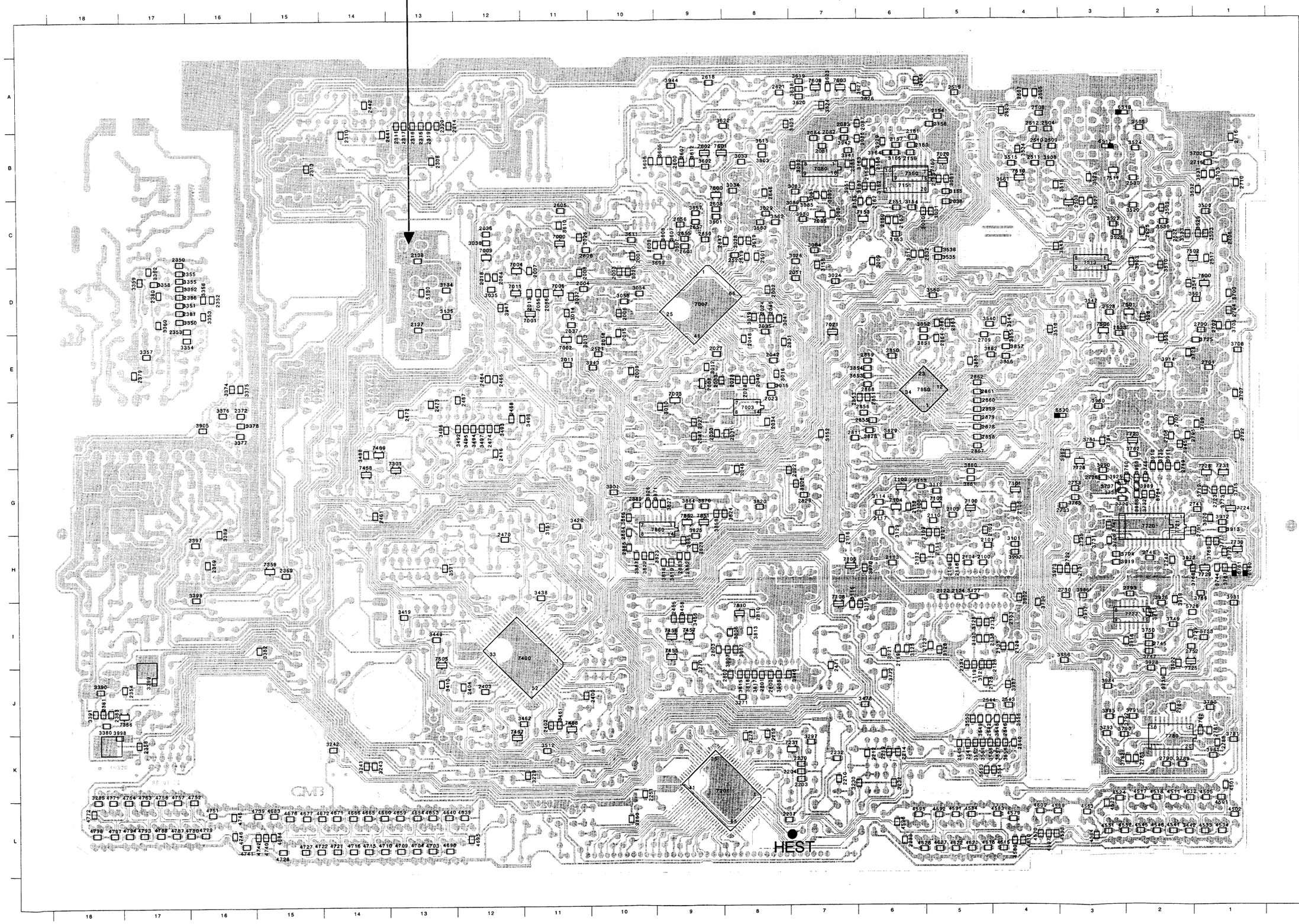


3-6

Mother Board AMB - solder side

Layout for cinch print rear



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2003	D 10	2320	A 13	2789	K 2	3353	D
2004	D 11	2350	C 17	2790	K 2	3354	E
2006	D 10	2352	D 16	2793	H 2	3355	D
2007	D 11	2353	D 17	2794	D 1	3356	D
2008	D 11	2354	J 17	2795	F 2	3357	E
2009	E 10	2355	D 17	2800	J 8	3358	D
2011	E 11	2358	K 17	2801	J 8	3359	D
2013	D 11	2359	H 15	2802	J 8	3360	D
2015	E 10	2369	H 16	2803	I 9	3362	I
2016	E 10	2372	F 16	2810	I 8	3374	E
2018	D 12	2379	E 17	2811	F 7	3375	E
2022	G 8	2380	D 17	2829	G 7	3376	F
2023	E 8	2381	D 17	2831	E 8	3377	F
2024	D 8	2383	J 18	2832	C 6	3378	F
2026	C 11	2386	D 17	2851	F 6	3380	I
2027	E 9	2400	J 11	2853	F 6	3381	I
2028	E 8	2402	J 11	2855	F 6	3382	I
2029	E 8	2403	J 12	2856	F 6	3389	H
2030	F 9	2404	J 12	2857	F 5	3390	A
2031	F 8	2416	F 12	2858	F 5	3391	A
2033	E 9	2441	B 14	2859	F 5	3397	A
2034	F 8	2442	A 14	2860	F 5	3398	A
2035	E 8	2455	I 9	2861	E 5	3410	J
2036	C 12	2461	G 14	2862	E 5	3419	J
2037	D 11	2464	E 12	2863	D 5	3420	G
2038	C 5	2465	E 12	2864	E 5	3438	J
2040	E 8	2467	F 12	2865	D 5	3449	I
2042	E 8	2468	F 12	2868	E 6	3456	I
2045	D 8	2470	H 12	2869	E 6	3458	I
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2047	F 9	2472	F 13	2879	F 5	3462	J
2048	E 8	2473	F 13	2882	H 9	3478	J
2051	D 7	2474	F 12	2883	H 9	3488	F
2055	D 11	2501	C 8	2884	H 10	3492	F
2064	D 12	2504	B 4	2885	H 10	3493	F
2066	D 11	2505	A 4	2889	G 10	3494	F
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2081	B 7	2507	A 4	3001	C 5	3496	F
2082	B 7	2508	C 3	3009	C 6	3497	F
2083	B 7	2509	B 4	3010	F 9	3498	F
2084	B 7	2510	B 4	3011	C 6	3500	C
2085	B 7	2511	B 4	3012	E 9	3501	C
2087	A 6	2512	B 4	3013	E 11	3502	E
2100	H 5	2515	A 5	3014	D 11	3503	C
2101	H 5	2517	C 1	3015	E 8	3505	B
2102	H 5	2519	C 8	3016	E 8	3509	C
2103	G 5	2520	C 8	3019	D 8	3510	C
2104	H 5	2521	E 10	3020	D 10	3512	C
2105	H 5	2523	E 3	3024	D 7	3515	B
2106	G 4	2524	C 2	3026	C 7	3516	B
2107	H 5	2525	C 2	3028	C 8	3518	B
2108	G 6	2526	D 2	3029	C 8	3519	C
2109	H 5	2527	C 2	3032	D 11	3520	C
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2112	H 6	2540	K 4	3035	D 12	3524	B
2113	H 6	2541	K 5	3036	C 12	3525	B
2115	G 6	2542	J 5	3047	D 8	3526	C
2116	H 7	2543	J 4	3051	B 5	3527	C
2117	G 6	2544	J 5	3054	D 10	3529	C
2118	H 5	2545	K 5	3055	D 10	3530	C
2119	I 6	2546	J 4	3080	C 7	3531	B
2121	I 6	2600	B 9	3081	C 7	3532	B
2122	I 5	2601	C 9	3082	B 7	3533	C
2123	I 5	2603	C 9	3083	B 7	3534	B
2124	I 5	2605	C 11	3084	C 7	3535	C
2125	J 5	2606	C 11	3085	C 7	3536	C
2126	J 5	2607	B 9	3086	B 6	3540	C
2128	I 4	2608	C 9	3089	C 7	3542	C
2129	J 5	2618	A 9	3101	H 4	3543	C
2130	I 5	2621	A 8	3112	G 5	3544	C
2132	I 5	2646	B 8	3113	G 6	3547	C
2133	I 5	2647	C 8	3114	G 6	3548	J
2134	J 5	2650	C 9	3116	I 7	3549	J
2135	I 4	2656	C 9	3119	I 6	3550	J
2137	D 13	2657	C 9	3121	J 5	3551	K
2138	C 13	2700	E 1	3122	I 4	3552	K
2150	C 6	2701	E 1	3125	I 6	3553	K
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2156	B 6	2709	E 5	3134	D 13	3558	K
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2158	B 6	2715	B 1	3151	G 11	3561	B
2159	B 6	2716	B 1	3152	F 7	3562	C
2160	B 6	2722	F 1	3153	C 6	3563	C
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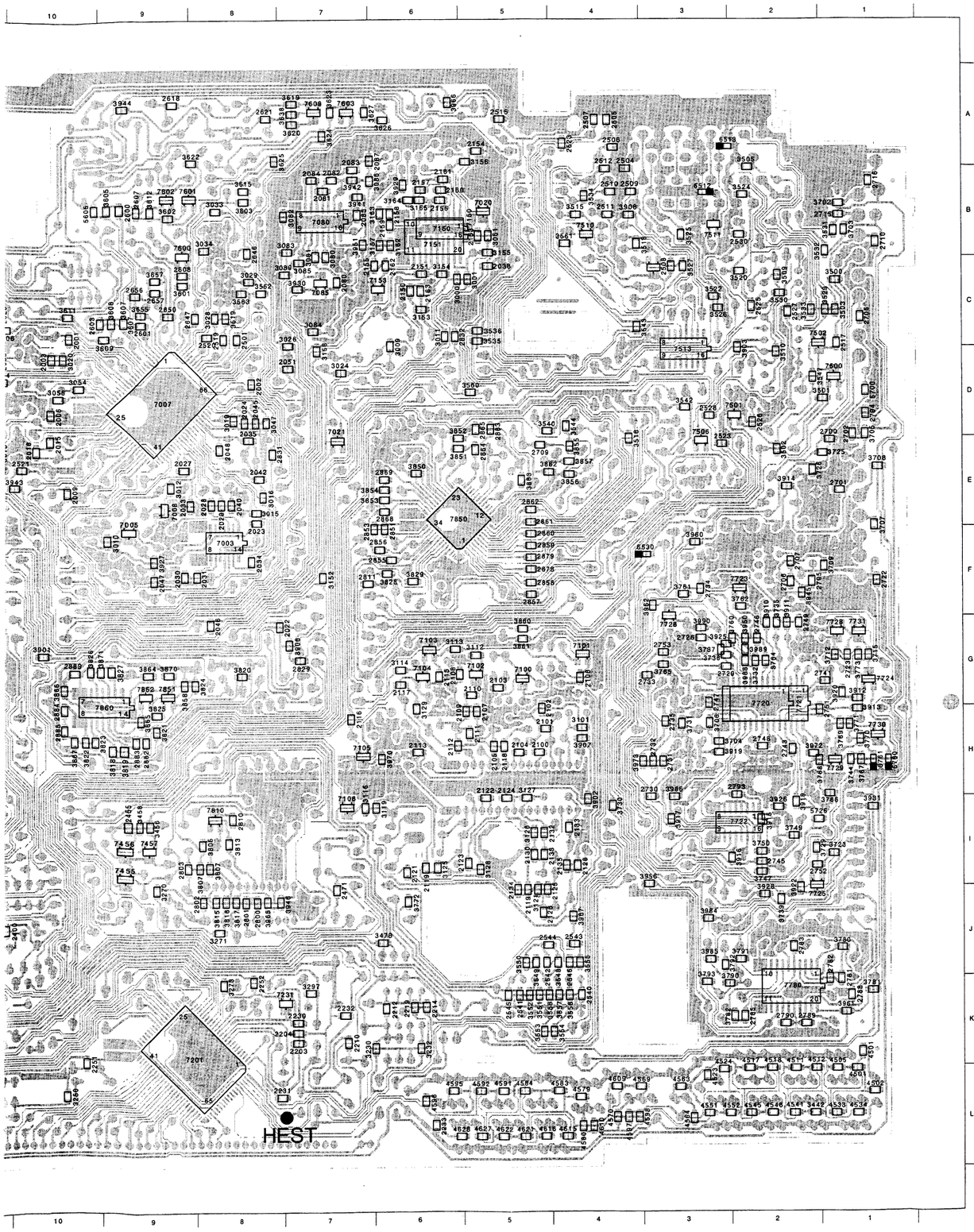
2162	C 6	2726	G 3	3155	B 5	3601	I
2163	C 6	2729	G 3	3156	A 5	3602	B
2203	K 7	2730	I 3	3157	B 6	3603	B
2204	K 7	2731	H 3	3158	D 7	3605	B
2210	K 7	2732	H 3	3162	B 6	3607	C
2212	K 6	2733	G 3	3163	B 6	3608	C
2213	K 6	2734	F 3	3164	B 6	3609	C
2214	K 6	2735	H 3	3165	B 6	3610	C
2230	K 7	2741	G 1	3229	K 11	3611	C
2231	L 8	2743	H 2	3230	K 6	3612	B
2232	K 7	2745	I 2	3232	K 6	3615	B
2233	L 6	2746	G 2	3241	K 14	3619	A
2251	K 10	2747	G 3	3242	K 14	3620	A
2252	K 8	2748	H 2	3243	K 14	3622	A
2308	B 13	2749	G 2	3245	L 18	3623	A
2310	B 14	2751	H 2	3250	L 10	3624	A
2311	A 13	2752	I 2	3270	J 9	3625	A
2313	B 15	2753	G 3	3271	J 8	3626	A
2314	A 13	2781	K 1	3273	K 8	3627	A
2315	A 13	2782	K 1	3297	K 7	3638	A
2316	A 13	2783	J 2	3350	D 17	3655	C



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	2004	D	11	2350	C	17	2790	K	2	3354	E	17	3704	H	3
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	2007	D	11	2353	D	17	2794	D	1	3356	D	16	3706	H	3
	2008	D	11	2354	J	17	2795	F	2	3357	E	17	3707	E	1
	2009	E	10	2355	D	17	2800	J	8	3358	D	17	3708	E	1
	2011	E	11	2358	K	17	2801	J	8	3359	D	17	3709	F	1
A	2013	D	11	2359	H	15	2802	J	8	3360	D	17	3712	G	1
	2015	E	10	2369	H	16	2803	I	9	3362	D	17	3715	G	1
	2016	E	10	2372	F	16	2810	I	8	3374	E	16	3723	I	1
	2018	D	12	2379	E	17	2811	F	7	3375	E	16	3725	E	1
	2022	G	8	2380	D	17	2829	G	7	3376	F	16	3726	E	2
	2023	E	8	2381	D	17	2831	E	8	3377	F	16	3729	I	2
	2024	D	8	2383	J	18	2832	C	6	3378	F	16	3730	I	4
	2026	C	11	2386	D	17	2851	F	6	3380	J	18	3731	H	3
	2027	E	9	2400	J	11	2853	F	6	3381	J	18	3732	G	2
B	2028	E	8	2402	J	11	2855	F	6	3382	I	15	3735	G	2
	2029	E	8	2403	J	12	2856	F	6	3389	H	16	3736	G	3
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	2031	F	8	2416	F	12	2858	F	5	3391	J	18	3739	J	2
	2033	E	9	2441	B	14	2859	F	5	3397	H	16	3744	H	1
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	2080	C	7	2506	A	4	3000	C	6	3495	F	12	3773	G	1
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	2082	B	7	2508	C	3	3009	C	6	3497	F	12	3781	K	1
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	2103	G	5	2520	C	8	3019	D	8	3510	D	2	3808	I	8
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	2105	H	5	2523	E	3	3024	D	7	3515	B	4	3815	J	8
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	2107	H	5	2525	C	2	3028	C	8	3518	B	4	3817	J	8
	2108	G	6	2526	D	2	3029	C	8	3519	C	8	3818	H	9
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	2122	I	5	2601	C	9	3082	B	7	3533	C	2	3850	E	6
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	2163	C	6	2729	G	3	3156	A	5	3602	B	9	3910	G	2
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	3944	A	9	4798	L	18
	3945	F	2	5130	D	13
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	3947	D	12	5700	D	1
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	3960	F	3	6530	F	3
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	3966	A	6	7001	D	11
	3967	J	4	7002	E	11
	3970	H	6	7003	F	8
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	3973	H	3	7005	F	9
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	3986	I	3	7008	E	9
	3988	G	2	7009	C	12
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	4523	L	3	7150	B	6
	4524	L	3	7151	B	6
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	4542	L	2	7301	G	13
	4545	L	2	7353	J	17
	4546	L	2	7356	J	17
	4551	L	3	7357	K	18
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	4564	L	3	7455	I	9
	4569	L	4	7456	I	9
	4570	L	4	7457	I	9
	4579	L	4	7458	G	14
	4580	L	4	7467	K	12
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	4591	L	5	7500	D	1
	4592	L	5	7501	D	2
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	4597	L	4	7506	E	3
	4598	L	4	7510	B	4
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	4653	L	13	7722	I	2
	4654	L	13	7723	F	2
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	4665	L	14	7726	F	3
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	4695	L	12	7851	G	9
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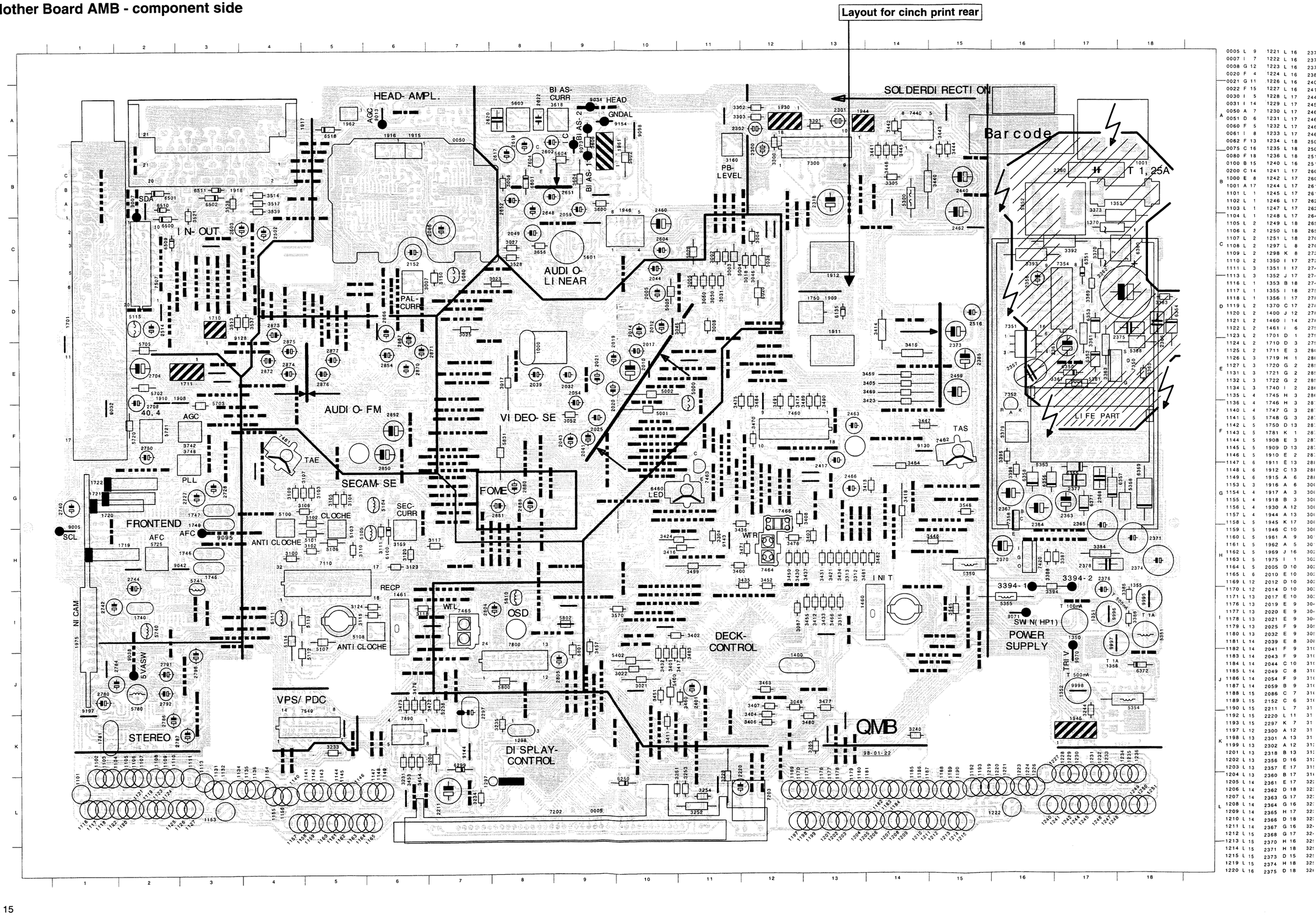
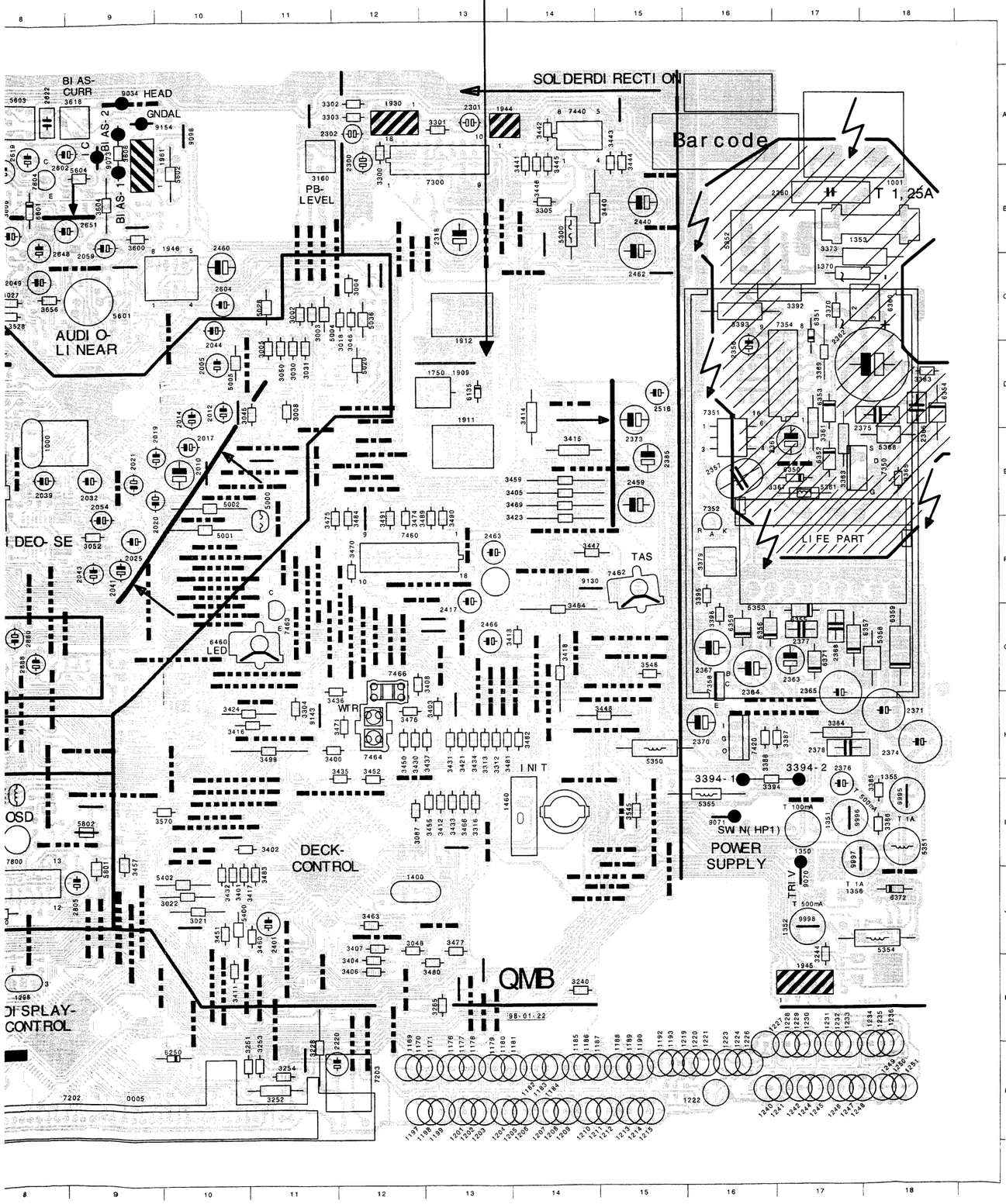
Mother Board AMB - component side



Layout for cinch print rear



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	0020 F 4	1224 L 16	2385 E 15	3303 A 12	5000 F 11	9010 B 2	9137 D 12	9259 G 7
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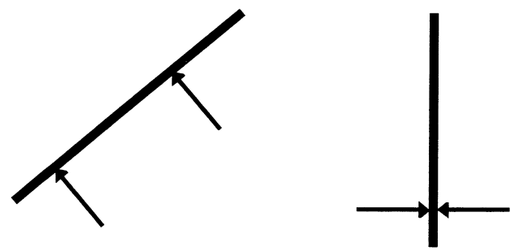
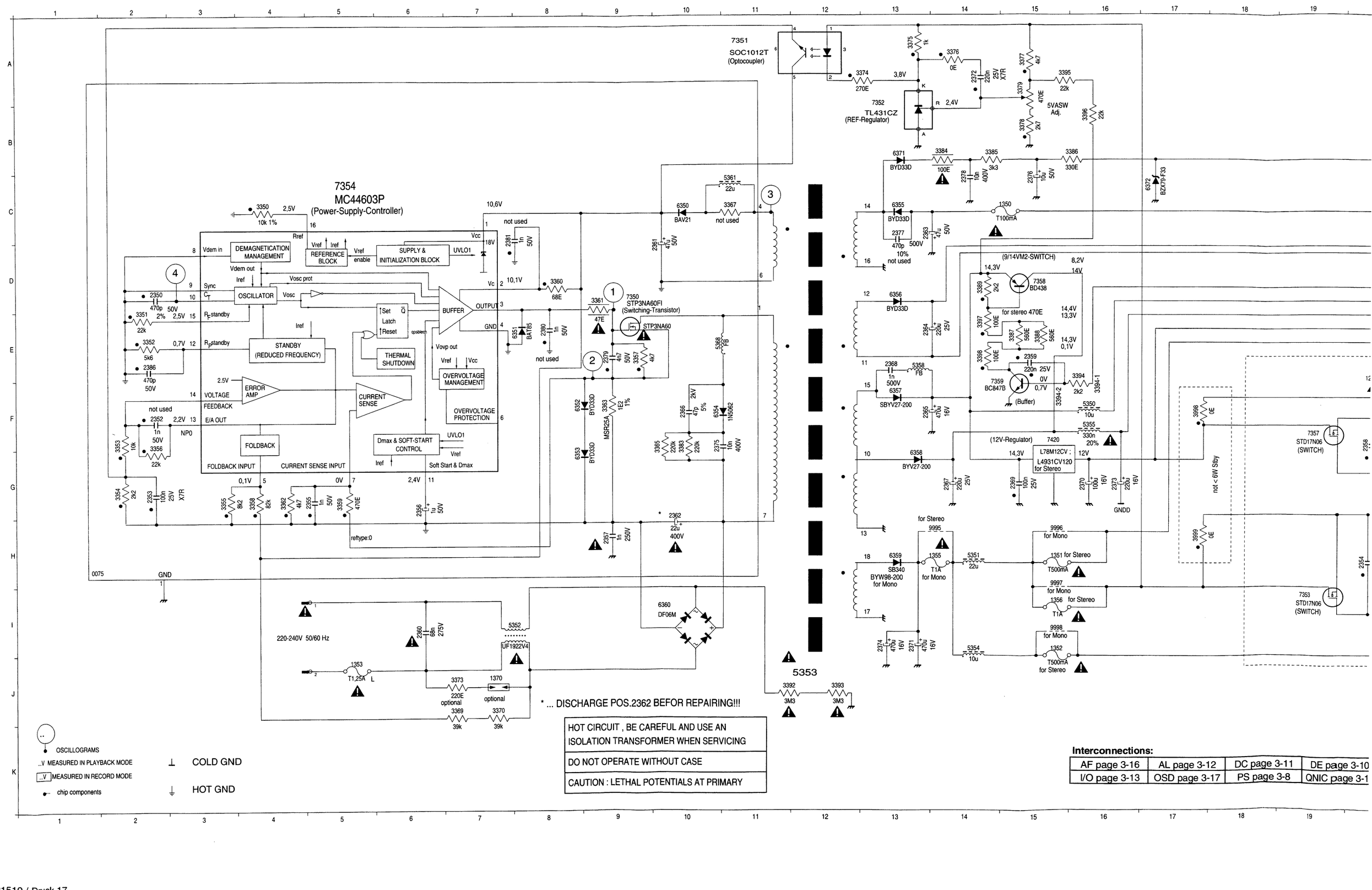
	1144 L 5	1908 E 3	2875 E 4	3434 H 13	5780 J 2	9072 K 13	9188 F 12	9435 E 12
	1145 L 5	1909 D 13	2876 E 5	3435 H 12	5800 J 8	9073 A 9	9189 G 11	9436 E 12
	1146 L 5	1910 E 2	2877 E 5	3436 G 11	5801 J 9	9074 K 13	9190 G 12	9437 E 12
	1147 L 6	1911 E 13	2880 G 8	3437 H 13	5802 I 9	9075 K 6	9191 J 7	9438 E 12
	1148 L 6	1912 C 13	2881 G 8	3440 B 14	5810 I 8	9076 K 13	9192 D 5	9439 F 14
	1149 L 6	1915 A 6	2888 G 8	3441 A 14	5831 F 8	9077 K 13	9193 E 7	9440 G 15
	1153 L 3	1916 A 6	3002 C 11	3442 A 14	6100 H 6	9078 D 5	9194 D 7	9441 G 14
G	1154 L 4	1917 A 3	3003 C 11	3443 A 15	6135 D 13	9079 H 8	9195 L 11	9444 H 17
	1155 L 4	1918 B 3	3004 C 12	3444 A 15	6250 L 10	9080 F 3	9196 D 2	9501 C 8
	1156 L 4	1930 A 12	3005 D 11	3445 A 14	6299 K 7	9081 F 7	9197 K 1	9502 G 8
	1157 L 4	1944 A 13	3006 B 8	3446 A 14	6350 E 17	9082 E 3	9198 E 1	9503 G 10
	1158 L 5	1945 K 17	3007 D 6	3447 F 14	6351 C 17	9083 D 2	9199 B 11	9504 F 8
	1159 L 5	1946 C 10	3008 D 11	3448 H 15	6352 E 17	9084 D 7	9200 B 2	9505 I 9
	1160 L 5	1961 A 9	3017 E 8	3450 H 12	6353 D 17	9086 G 2	9201 F 3	9506 K 5
	1161 L 5	1962 A 5	3018 C 12	3451 J 10	6354 D 18	9087 D 6	9202 D 3	9507 E 11
	1162 L 5	1969 J 16	3021 J 10	3452 H 12	6355 G 17	9089 B 9	9203 D 3	9509 E 10
H	1163 L 5	1975 I 1	3022 J 10	3453 K 6	6356 G 16	9090 B 12	9204 B 5	9510 G 10
	1164 L 5	2005 D 10	3023 D 8	3454 K 6	6357 G 17	9091 C 12	9205 E 10	9511 E 11
	1165 L 6	2010 E 10	3025 D 7	3455 I 13	6358 G 16	9092 C 9	9206 E 7	9512 F 10
	1169 L 12	2012 D 10	3027 C 8	3457 I 9	6359 G 18	9093 G 7	9207 D 6	9513 E 11
	1170 L 12	2014 D 10	3030 D 11	3459 E 14	6360 C 18	9094 F 4	9208 D 6	9514 F 10
	1171 L 13	2017 E 10	3031 D 11	3460 J 11	6371 G 17	9095 H 3	9209 G 7	9515 F 10
	1176 L 13	2019 E 9	3045 D 11	3463 J 12	6372 J 18	9096 I 4	9210 E 7	9516 F 10
	1177 L 13	2020 E 9	3046 C 12	3464 G 14	6460 G 11	9097 C 3	9211 D 6	9517 F 10
I	1178 L 13	2021 E 9	3048 J 12	3466 I 13	6500 C 2	9098 A 10	9212 A 6	9518 F 10
	1179 L 13	2025 F 9	3050 D 11	3469 E 14	6501 B 2	9099 A 11	9213 I 10	9519 G 8
	1180 L 13	2032 E 9	3052 F 9	3470 F 12	6502 B 3	9100 K 11	9214 G 12	9520 F 10
	1181 L 14	2039 E 8	3087 I 12	3471 H 12	6509 C 2	9101 K 10	9215 F 13	9521 G 10
	1182 L 14	2041 F 9	3100 H 4	3472 J 6	6510 B 2	9102 K 10	9216 I 14	9522 G 10
	1183 L 14	2043 F 9	3102 H 5	3473 J 6	6511 B 3	9103 J 9	9217 E 12	9530 L 6
	1184 L 14	2044 C 10	3103 G 5	3474 F 12	6516 A 5	9104 K 11	9218 I 3	9801 I 9
	1185 L 14	2049 C 8	3104 G 5	3475 F 12	6601 B 8	9105 L 7	9219 H 7	9950 J 3
J	1186 L 14	2054 F 9	3105 G 5	3476 H 12	7110 H 5	9106 F 12	9220 C 4	9951 J 3
	1187 L 14	2059 B 9	3106 G 5	3477 J 13	7202 L 9	9107 G 13	9221 D 12	9952 J 3
	1188 L 15	2086 C 7	3107 G 4	3479 J 6	7203 L 12	9108 G 13	9222 F 7	9953 J 3
	1189 L 15	2152 C 6	3109 G 4	3480 K 13	7300 A 13	9109 G 13	9223 K 6	9954 K 3
	1190 L 15	2211 L 7	3110 H 5	3481 H 13	7350 E 18	9110 K 11	9224 H 9	9955 K 3
	1192 L 15	2220 L 11	3111 H 6	3482 H 14	7351 E 16	9111 K 10	9225 F 7	9956 K 3
	1193 L 15	2297 K 7	3115 I 6	3483 J 11	7352 F 16	9112 H 8	9226 G 6	9957 K 3
	1197 L 12	2300 A 12	3117 H 7	3484 F 12	7354 D 17	9113 C 12	9227 F 5	9995 I 18
K	1198 L 13	2301 A 13	3118 I 6	3489 F 13	7358 G 16	9114 I 10	9228 B 5	9996 I 17
	1199 L 13	2302 A 12	3120 H 6	3490 F 13	7420 H 16	9115 C 14	9229 D 3	9997 I 17
	1201 L 13	2318 B 13	3123 H 6	3491 F 12	7440 A 14	9116 G 14	9230 D 3	9998 J 17
	1202 L 13	2356 D 16	3124 I 6	3499 H 11	7460 F 12	9117 B 13	9231 C 3	
	1203 L 13	2357 E 17	3159 H 6	3513 D 3	7461 F 4	9118 G 11	9232 D 4	
	1204 L 13	2360 B 17	3160 A 11	3514 B 4	7462 F 15	9119 F 14	9233 D 5	
	1205 L 14	2361 E 17	3228 L 11	3517 B 4	7463 G 11	9120 G 13	9234 D 5	
	1206 L 14	2362 D 18	3231 K 6	3521 B 3	7464 H 12	9121 G 13	9235 G 6	
	1207 L 14	2363 G 17	3233 K 5	3528 C 8	7465 I 7	9122 H 13	9236 D 4	
L	1208 L 14	2364 G 16	3234 L 7	3537 D 4	7466 G 12	9123 G 13	9237 K 9	
	1209 L 14	2365 H 17	3235 K 8	3538 B 3	7507 C 2	9124 J 8	9238 I 7	
	1210 L 14	2366 D 18	3238 J 7	3539 B 4	7540 K 5	9125 I 7	9241 D 6	
	1211 L 14	2367 G 16	3240 K 14	3545 I 15	7604 B 8	9126 E 3	9242 D 11	
	1212 L 15	2368 G 17	3244 J 17	3546 G 15	7800 J 8	9127 J 9	9243 I 9	
	1213 L 15	2370 H 16	3251 L 10	3570 I 10	7890 K 6	9128 E 4	9244 F 4	
	1214 L 15	2371 H 18	3252 L 11	3600 B 9	9000 B 1	9129 E 11	9245 J 15	
	1215 L 15	2373 D 15	3253 L 11	3604 B 9	9004 K 10	9130 F 14	9246 I 2	
	1219 L 15	2374 H 18	3254 L 11	3606 A 9	9005 H 1	9131 L 6	9247 G 4	
	1220 L 16	2375 D 18	3265 K 13	3618 A 9	9006 I 8	9132 I 12	9248 F 3	

Make sure that the components in these areas are aligned correctly !!! (Danger of collision with deck)



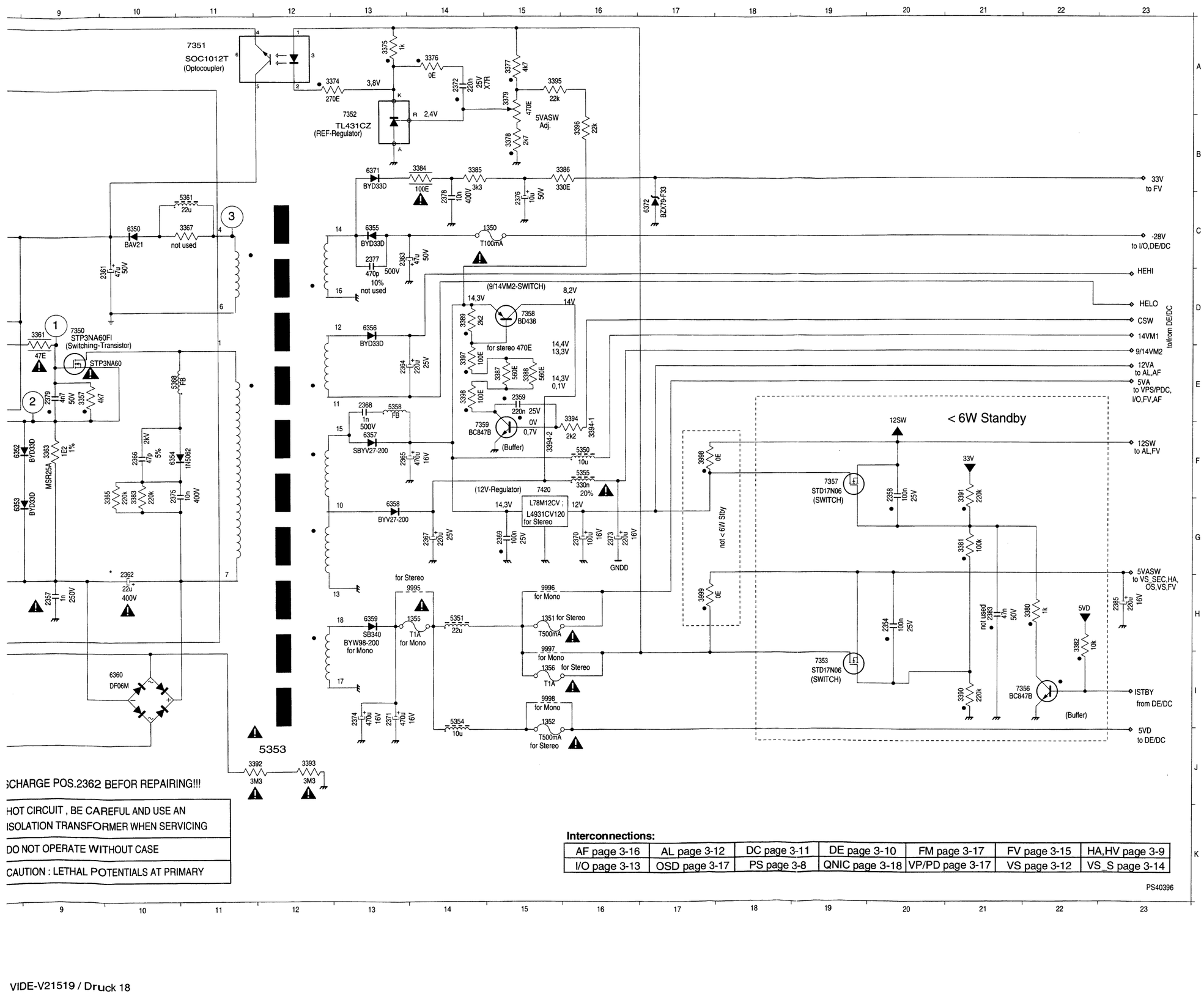
3-8

Power Supply (PS)



Interconnections:

AF page 3-16	AL page 3-12	DC page 3-11	DE page 3-10
I/O page 3-13	OSD page 3-17	PS page 3-8	QNIC page 3-1



Interconnections:

AF page 3-16	AL page 3-12	DC page 3-11	DE page 3-10	FM page 3-17	FV page 3-15	HA,HV page 3-9
I/O page 3-13	OSD page 3-17	PS page 3-8	QNIC page 3-18	VP/PD page 3-17	VS page 3-12	VS_S page 3-14

PS40396

0075 H 1
1350 C15
1351 H15
1352 I15
1353 J 5
1355 H14
1356 I15
1370 J 7
2350 D 2
2352 F 2
2353 G 2
2354 H20
2355 G 5
2356 G 6
2357 H 9
2358 F20
2359 E15
2360 I 6
2361 D10
2362 H10
2363 C13
2364 E13
2365 F13
2366 F10
2367 G14
2368 E13
2369 G15
2370 G16
2371 I13
2372 A14
2373 G16
2374 I13
2375 F10
2376 C15
2377 C13
2378 C14
2379 E 9
2380 E 8
2381 C 7
2383 H21
2385 H23
2386 E 2
3350 C 4
3351 E 2
3352 E 2
3353 F 2
3354 G 2
3355 G 3
3356 F 2
3357 E 9
3358 G 4
3359 G 5
3360 D 8
3361 D 9
3362 G 4
3363 F 9
3365 F10
3367 C11
3369 J 7
3370 J 7
3373 J 7
3374 A13
3375 A13
3376 A14
3377 A15
3378 B15
3379 A15
3380 H22
3381 G21
3382 H22
3383 F10
3384 B14
3385 B14
3386 B16
3387 E15
3388 E15
3389 D14
3390 I21
3391 F21
3392 J11
3393 J12
3394 E16
3395 A15
3396 B16
3397 E14
3398 E14
3998 F17
3999 H17
5350 F16
5351 H14
5352 I 8
5353 J12
5354 I14
5355 F16
5358 E13
5361 C11
5368 E10
6350 C10
6351 E 8
6352 F 8
6353 G 8
6354 F10
6355 C13
6356 D13
6357 F13
6358 G13
6359 H13
6360 I10
6371 B13
6372 C17
7350 D 9
7351 A11
7352 B13
7353 I19
7354 C 5
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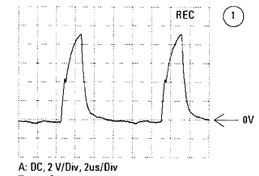
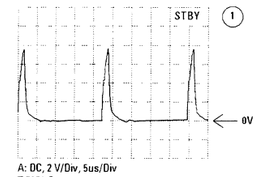
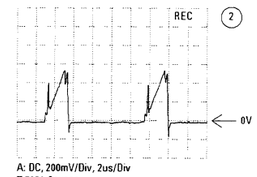
7357 F19
7358 D15
7359 F15
7420 F15
9995 H14
9996 H15
9997 I15
9998 I15



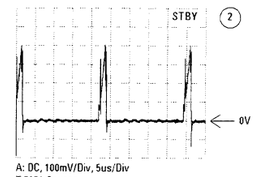
A: DC, 2 V/Div, 2us/Div
T 7350 Gate



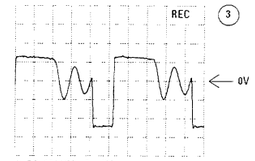
A: DC, 2 V/Div, 5us/Div
T 7350 Gate



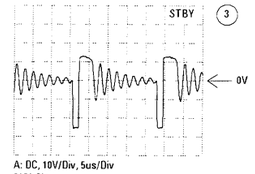
A: DC, 200mV/Div, 2us/Div
T 7350 Source



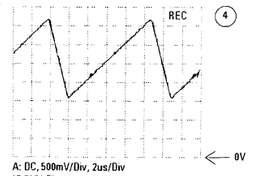
A: DC, 100mV/Div, 5us/Div
T 7350 Source



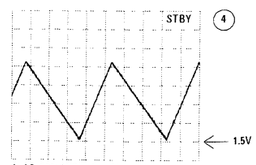
A: DC, 10 V/Div, 2us/Div
5353 Pin 4



A: DC, 10V/Div, 5us/Div
5353 Pin 4

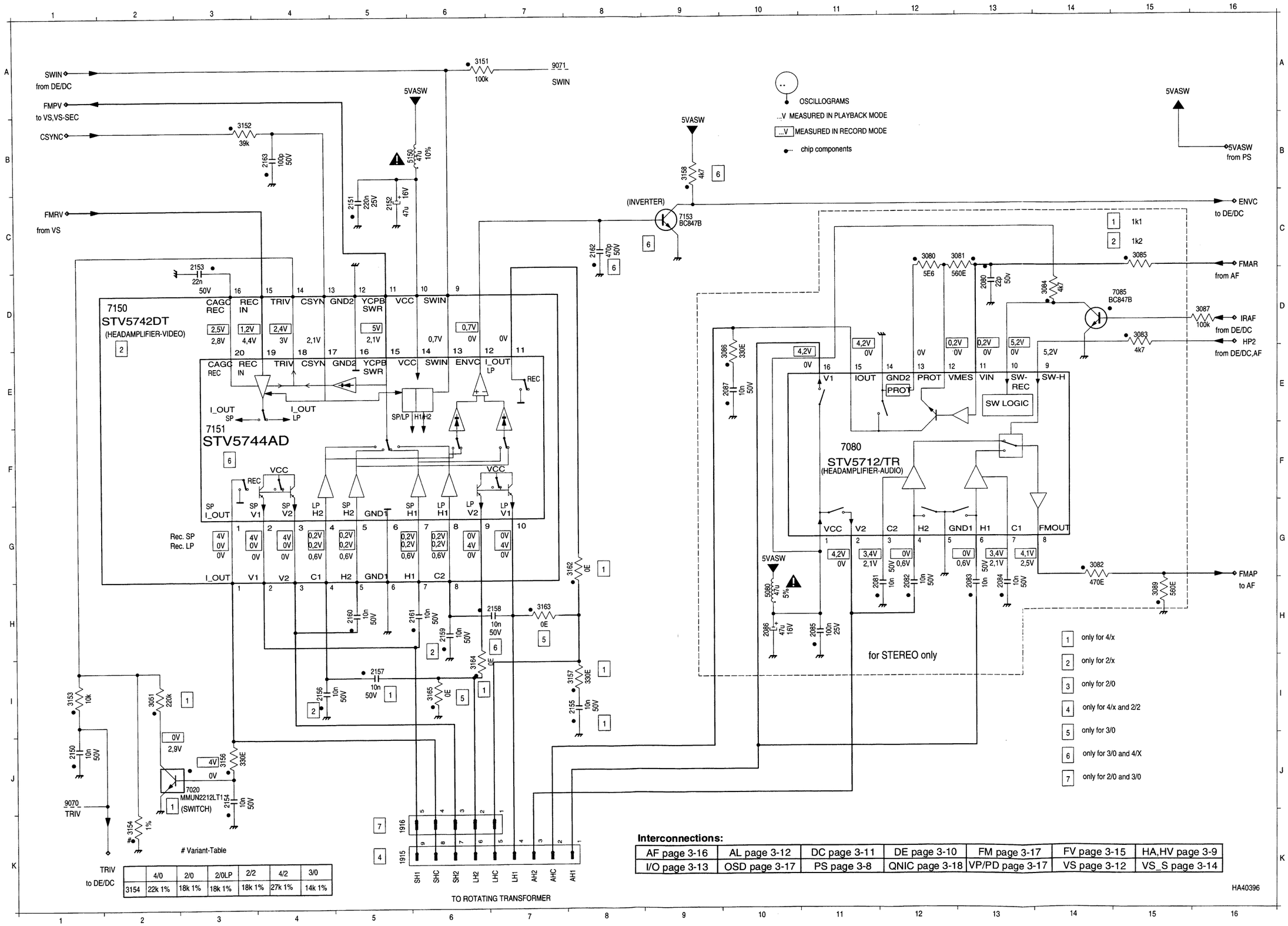


A: DC, 500mV/Div, 2us/Div
IC 7354 Pin 10



A: AC, 500mV/Div, 5us/Div
IC 7354 Pin 10

Head Amplifier (HA)



Interconnections:

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HA40396

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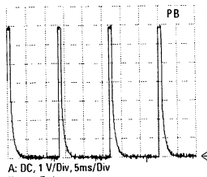
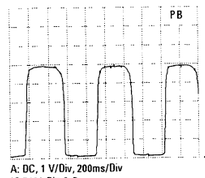
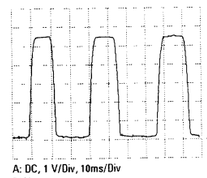
Deck Electronics (DE)



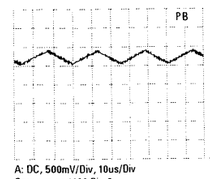
A: DC, 1 V/Div, 5ms/Div
T 7463 Emitter



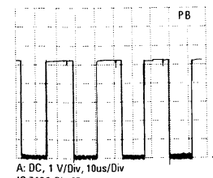
A: DC, 1 V/Div, 200ms/Div
IC 7460 Pin 6, 7



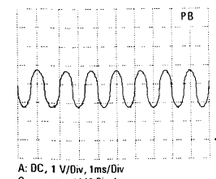
A: DC, 1 V/Div, 10ms/Div
7466



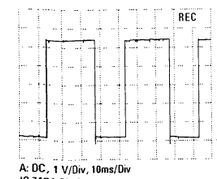
A: DC, 500mV/Div, 10us/Div
Connector 1930 Pin 6



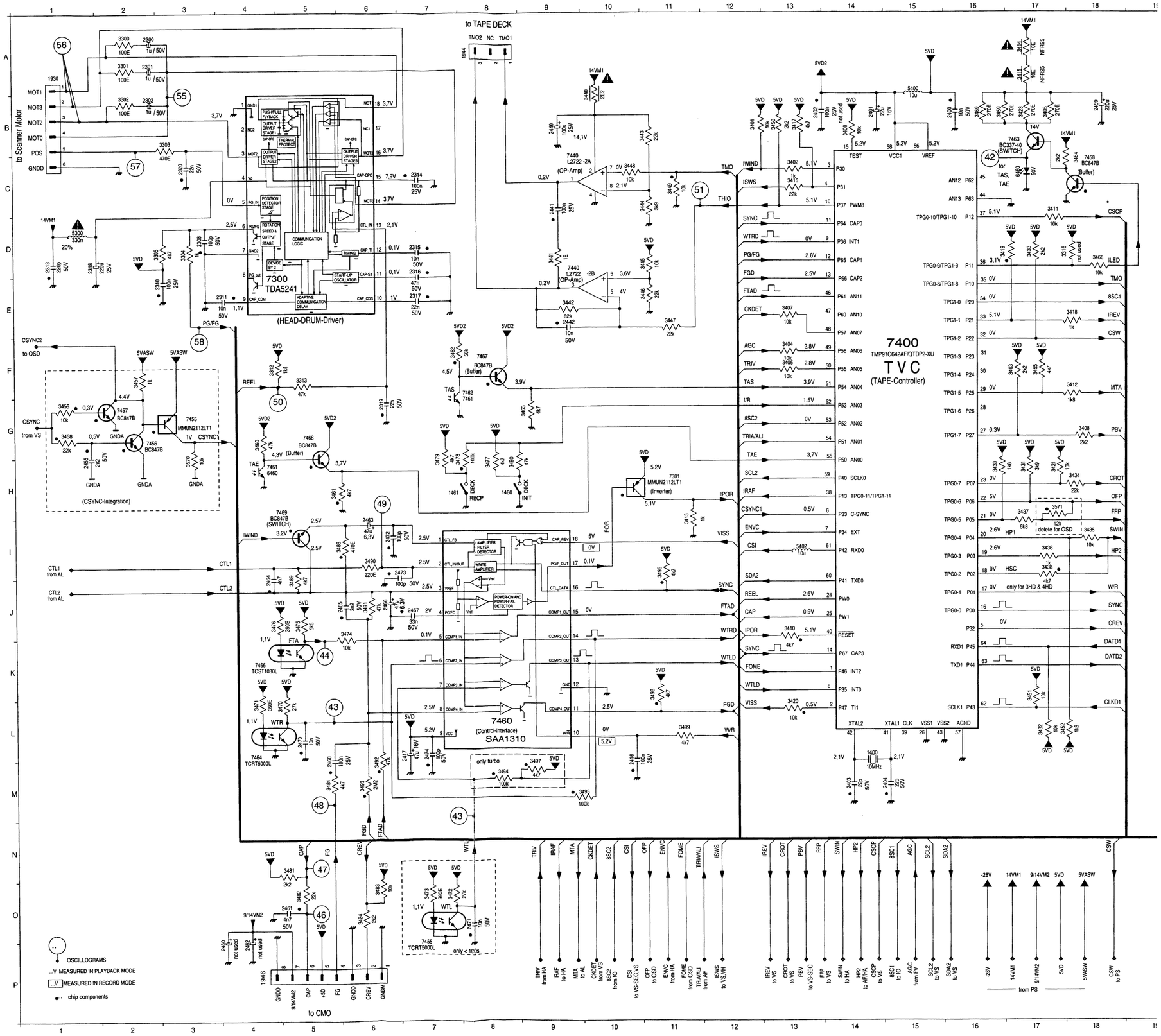
A: DC, 1 V/Div, 10us/Div
IC 7400 Pin 25



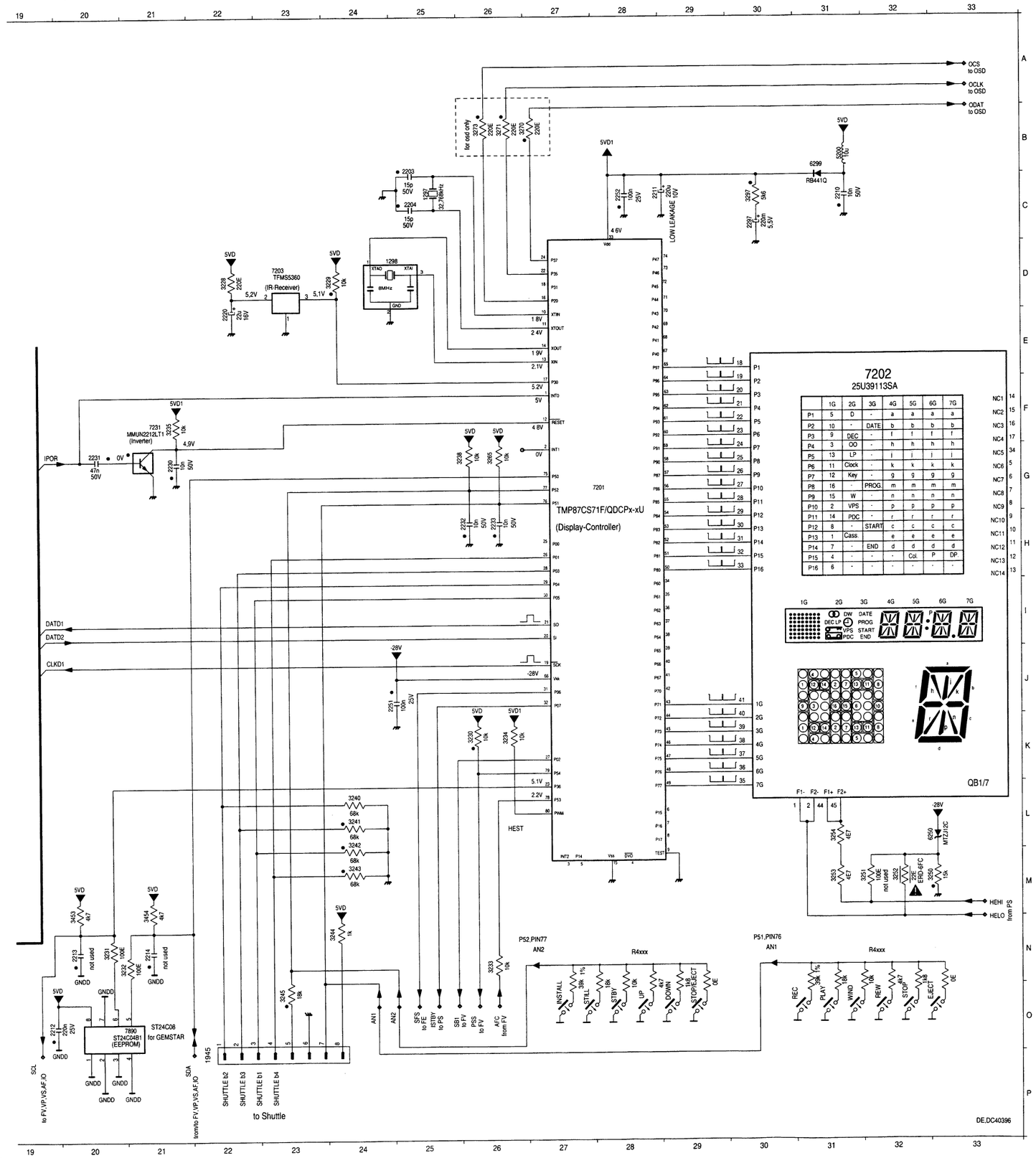
A: DC, 1 V/Div, 1ms/Div
Connector 1946 Pin 4



A: DC, 1 V/Div, 10ms/Div
IC 7460 Pin 2



Display Control (DC)



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1400	L14	3452	L18	1945	Q22	2214	N21	3466	D18	2302	B 3	3479	G 7
1460	H 8	3453	M20	1946	P 4	2220	D22	3469	B16	2308	D 3	3480	G 9
1461	H 8	3454	M21	2203	B25	2230	G21	3470	K 5	2310	E 3	3481	N 5
1930	A 1	3455	F17	2204	C25	2231	G20	3471	K 4	2311	E 4	3482	O 5
1944	A 8	3456	G 1	2210	C31	2232	H26	3472	O 8	2313	D 1	3483	O 6
1945	Q22	3457	F 2	2211	C29	2233	H26	3473	O 7	2314	C 7	3484	M 6
1946	P 4	3458	G 1	2212	Q20	2251	J25	3474	J 6	2315	D 7	3488	I 6
2203	B25	3459	B17	2213	N20	2252	C28	3475	J 5	2316	D 7	3489	I 5
2204	C25	3460	G 4	2214	N21	2297	C30	3476	J 5	2317	E 7	3490	I 6
2210	C31	3461	H 6	2220	D22	2300	A 3	3477	G 8	2318	D 2	3491	J 6
2211	C29	3462	F 8	2230	G21	2301	A 3	3478	G 8	2319	G 6	3492	L 6
2212	Q20	3463	G 9	2231	G20	2302	B 3	3479	G 7	2320	C 3	3493	M 6
2213	N20	3464	B18	2232	H26	2308	D 3	3480	G 9	2400	B16	3494	M 8
2214	N21	3466	D18	2233	H26	2310	E 3	3481	N 5	2401	B15	3495	M10
2220	D22	3469	B16	2251	J25	2311	E 4	3482	O 5	2402	B14	3496	I11
2230	G21	3470	K 5	2252	C28	2313	D 1	3483	O 6	2403	M14	3497	L 9
2231	G20	3471	K 4	2297	C30	2314	C 7	3484	M 6	2404	M15	3498	K11
2232	H26	3472	O 8	2300	A 3	2315	D 7	3488	I 6	2416	L11	3499	L11
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2251	J25	3474	J 6	2302	B 3	2317	E 7	3490	I 6	2440	B 9	3571	H18
2252	C28	3475	J 5	2303	B 3	2318	D 2	3491	J 6	2441	C 9	5200	B31
2297	C30	3476	J 5	2304	D 3	2319	G 6	3492	L 6	2442	E10	5300	D 1
2300	A 3	3477	G 8	2305	D 3	2320	C 3	3493	M 6	2455	G 2	5400	A15
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2302	B 3	3479	G 7	2313	F 5	2401	B15	3495	M10	2460	O 4	6250	L33
2308	D 3	3480	G 9	2316	D18	2402	B14	3496	I11	2461	O 5	6299	B31
2310	E 3	3481	N 5	3400	B14	2403	M14	3497	L 9	2462	O 4	6460	C17
2311	E 4	3482	O 5	3401	B13	2404	M15	3498	K11	2463	H 6	7201	G28
2313	D 1	3483	O 6	3402	C13	2416	L11	3499	L11	2464	I 5	7202	E32
2314	C 7	3484	M 6	3403	F17	2417	L 7	3570	G 3	2465	J 6	7203	D23
2315	D 7	3488	I 6	3404	F13	2440	B 9	3571	H18	2466	J 6	7231	F21
2316	D 7	3489	I 5	3405	B17	2441	C 9	5200	B31	2467	J 7	7300	D 5
2317	E 7	3490	I 6	3406	F13	2442	E10	5300	D 1	2468	L 6	7301	H11
2318	D 2	3491	J 6	3407	E13	2455	G 2	5400	A15	2470	L 5	7400	F15
2319	G 6	3492	L 6	3408	G18	2459	B18	5402	I13	2471	O 8	7440	B10
2320	C 3	3493	M 6	3410	J13	2460	O 4	6250	L33	2472	I 7	7440	D10
2400	B16	3494	M 8	3411	C17	2461	O 5	6299	B31	2473	I 7	7455	G 3
2401	B15	3495	M10	3412	F18	2462	O 4	6460	C17	2474	L 7	7456	G 2
2402	B14	3496	I11	3413	H11	2463	H 6	7201	G28	3228	D22	7457	G 2
2403	M14	3497	L 9	3414	A17	2464	I 5	7202	E32	3229	D24	7458	B18
2404	M15	3498	K11	3415	A17	2465	J 6	7203	D23	3230	K26	7460	L 8
2416	L11	3499	L11	3416	C13	2466	J 6	7231	F21	3231	N20	7461	H 4
2417	L 7	3570	G 3	3417	B13	2467	J 7	7300	D 5	3232	N21	7462	F 8
2440	B 9	3571	H18	3418	E18	2468	L 6	7301	H11	3233	N26	7463	B17
2441	C 9	5200	B31	3419	D17	2470	L 5	7400	F15	3234	K26	7464	L 4
2442	E10	5300	D 1	3420	K13	2471	O 8	7440	B10	3235	F21	7465	O 7
2455	G 2	5400	A15	3421	H18	2472	I 7	7440	D10	3238	G26	7466	K 4
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2460	O 4	6250	L33	3424	O 6	2474	L 7	7456	G 2	3241	L24	7468	G 5
2461	O 5	6299	B31	3430	H17	3228	D22	7457	G 2	3242	L24	7469	H 5
2462	O 4	6460	C17	3431	H17	3229	D24	7458	B18	3243	M24	7890	O21
2463	H 6	7201	G28	3432	L17	3230	K26	7460	L 8	3244	N24		
2464	I 5	7202	E32	3433	D17	3231	N20	7461	H 4	3245	O23		
2465	J 6	7203	D23	3434	H18	3232	N21	7462	F 8	3250	M33		
2466	J 6	7231	F21	3435	I18	3233	N26	7463	B17	3251	M32		
2467	J 7	7300	D 5	3436	I17	3234	K26	7464	L 4	3252	M32		
2468	L 6	7301	H11	3437	H17	3235	F21	7465	O 7	3253	M31		
2470	L 5	7400	F15	3438	I17	3238	G26	7466	K 4	3254	L31		
2471	O 8	7440	B10	3440	A10	3240	L24	7467	F 8	3265	G26		
2472	I 7	7440	D10	3441	D 9	3241	L24	7468	G 5	3270	B27		
2473	I 7	7455	G 3	3442	E 9	3242	L24	7469	H 5	3271	B26		
2474	L 7	7456	G 2	3443	B11	3243	M24	7890	O21	3273	B26		
3228	D22	7457	G 2	3444	C11	3244	N24			3297	C30		
3229	D24	7458	B18	3445	D11	3245	O23			3300	A 2		
3230	K26	7460	L 8	3446	E11	3250	M33			3301	A 2		
3231	N20	7461	H 4	3447	E11	3251	M32			3302	B 2		
3232	N21	7462	F 8	3448	C11	3252	M32			3303	B 3		
3233	N26	7463	B17	3449	C11	3253	M31			3304	D 3		
3234	K26	7464	L 4			3254	L31			3305	D 3		
3235	F21	7465	O 7			3265	G26			3312	F 5		
3238	G26	7466	K 4			3270	B27			3313	F 5		
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3241	L24	7468	G 5			3273	B26			3400	B14		
3242	L24	7469	H 5			3297	C30			3401	B13		
3243	M24	7890	O21			3300	A 2			3402	C13		
3244	N24					3301	A 2			3403	F17		
3245	O23					3302	B 2			3404	F13		
3250	M33					3303	B 3			3405	B17		
3251	M32					3304	D 3			3406	F13		
3252	M32					3305	D 3			3407	E13		
3253	M31					3312	F 5			3408	G18		
3254	L31					3313	F 5			3410	J13		
3265	G26					3316	D18			3411	C17		
3270	B27					3400	B14			3412	F18		
3271	B26					3401	B13			3413	H11		
3273	B26					3402	C13			3414	A17		
3297	C30					3403	F17			3415	A17		
3300	A 2					3404	F13			3416	C13		
3301	A 2					3405	B17			3417	B13		
3302	B 2					3406	F13			3418	E18		
3303	B 3					3407	E13			3419	D17		
3304	D 3					3408	G18			3420	K13		
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3312	F 5					3411	C17			3423	B17		
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3316	D18					3413	H11			3430	H17		
3400	B14					3414	A17			3431	H17		
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3402	C13					3416	C13			3433	D17		
3403	F17					3417	B13			3434	H18		
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3406	F13					3420	K13			3437	H17		
3407	E13					3421	H18			3438	I17		
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3410	J13					3424	O 6			3441	D 9		
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3412	F18					3431	H17			3443	B11		
3413	H11					3432	L17			3444	C11		
3414	A17					3433	D17			3445	D11		
3415	A17					3434	H18			3446	E11		
3416	C13					3435	I18			3447	E11		
3417	B13					3436	I17			3448	C11		
3418	E18					3437	H17			3449	C11		
3419	D17					3438	I17						
3420	K13					3440	A10						
3421	H18					3441	D 9						
3423	B17					3442	E 9						
3424	O 6					3443	B11						
3430	H17					3444	C11						
3431	H17					3445	D11						
3432	L17					3446	E11						
3433	D17					3447	E11						
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3435	I18					3449	C11						
3436	I17												
3437	H17												
3438	I17												
3440	A10												
3441	D 9												
3442	E 9												
3443	B11												
3444	C11												
3445	D11												
3446	E11												
3447	E11												
3448	C11												
3449	C11												

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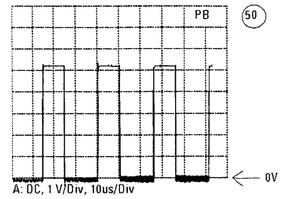
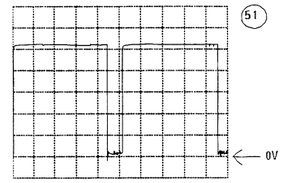
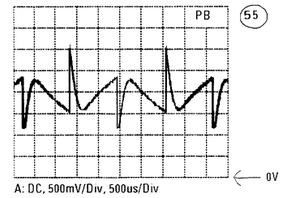


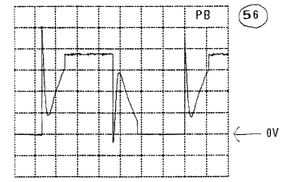
A: DC, 1 V/Div, 10us/Div
IC 7400 Pin 24



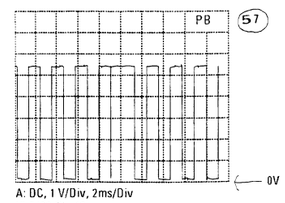
A: DC, 1 V/Div, 10us/Div
IC 7400 Pin 10



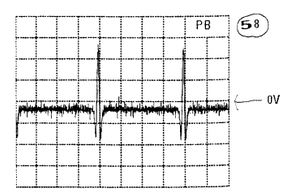
A: DC, 500mV/Div, 500us/Div
Connector 1930 Pin 4



A: DC, 2 V/Div, 1ms/Div
Connector 1930 Pin 1, 2, 3



A: DC, 1 V/Div, 2ms/Div
IC 7400 Pin 12



A: DC, 2 V/Div, 10ms/Div
Connector 1930 Pin 5

Keyfunction AN2	4xxx	Voltage pin77 P52
STOP/EJECT	0E	0V
DOWN	1k8	0.808V
UP	4k7	1.695V
STBY	10k	2.65V
STILL	18k	3.41V
INSTALL	39k	4.22V

Keyfunction AN1	4xxx	Voltage pin76 P51
EJECT	0E	0V
STOP	1k8	0.808V
REWIND	4k7	1.695V
WIND	10k	2.65V
PLAY	18k	3.41V
RECORD	39k	4.22V

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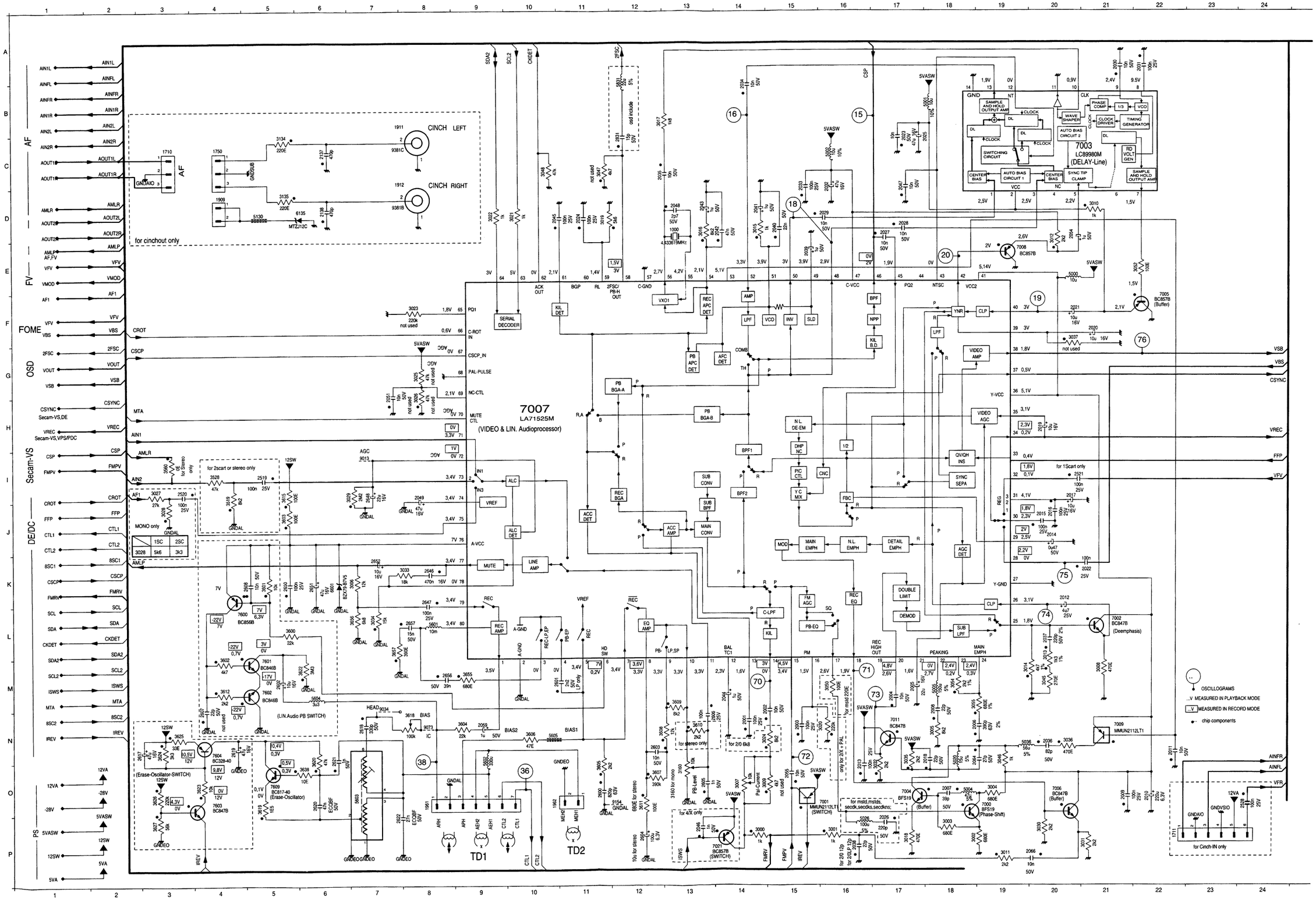
Video Signal Processing (VS), Audio Linear (AL)



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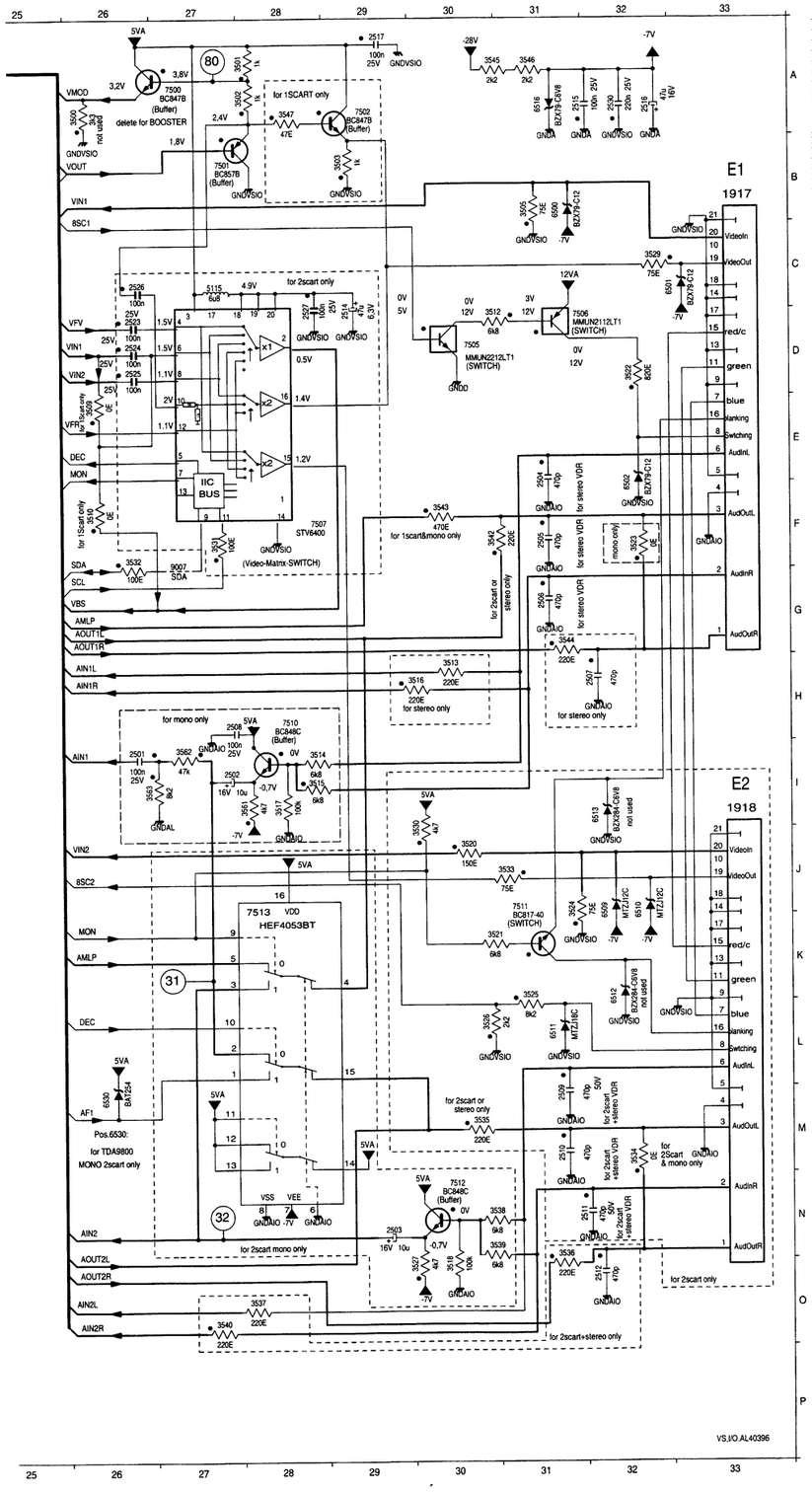
In/Out (I/O)



	1000	D13	3022	D 9	7500	A27
	1710	C 3	3023	F 8	7501	B27
	1711	P22	3024	N14	7502	A29
	1750	C 4	3025	G 8	7505	D30
	1909	D 4	3026	G 8	7506	D31
A	1911	B 8	3027	I 3	7507	F29
	1912	C 8	3028	J 3	7510	H28
	1917	B33	3029	I 7	7511	J31
	1918	I33	3030	P20	7512	N30
	1961	O 8	3031	P21	7513	J28
	1962	O10	3032	O17	7600	L 5
	2001	N14	3033	K 8	7601	M 5
	2002	M14	3034	L 7	7602	M 5
	2003	N15	3035	N17	7603	O 4
	2004	M17	3036	N20	7604	N 4
B	2005	M17	3037	F20	7609	O 5
	2006	N18	3045	M20	9007	F27
	2007	O18	3046	N19	9013	I 7
	2008	M18	3047	C11	9034	M 7
	2009	O21	3048	C10	9073	N 8
	2010	O22	3050	M16	9154	O12
	2011	N22	3052	E22		
	2012	K20	3054	M18		
C	2013	O16	3055	M18		
	2014	J20	3134	C 5		
	2015	J20	3135	D 5		
	2016	J20	3160	O13		
	2017	I20	3500	A26		
	2018	N18	3501	A28		
	2019	H20	3502	A28		
	2020	F21	3503	B29		
	2021	F20	3505	B31		
D	2022	K21	3509	E26		
	2023	C17	3510	F26		
	2024	D11	3512	D30		
	2025	C17	3513	H30		
	2026	P17	3514	I28		
	2027	D17	3515	I28		
	2028	D17	3516	H30		
	2029	D16	3517	I28		
E	2030	A21	3518	O30		
	2031	A22	3519	I 4		
	2032	C16	3520	J30		
	2033	C15	3521	K30		
	2034	B14	3522	D32		
	2035	C12	3523	F32		
	2036	N20	3524	J31		
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	2038	P16	3526	L30		
	2039	E15	3527	O30		
	2040	D15	3528	I 4		
	2041	D14	3529	C32		
	2042	D14	3530	I30		
	2043	D13	3531	F27		
	2044	M14	3532	F26		
	2045	D10	3533	J31		
G	2046	P13	3534	M32		
	2047	C17	3535	M30		
	2048	D13	3536	N31		
	2049	I 8	3537	O28		
	2051	G 7	3538	N30		
	2054	O20	3539	N30		
	2055	O15	3540	O27		
	2059	N 9	3542	F30		
	2064	N18	3543	F30		
H	2066	P20	3544	G31		
	2137	C 6	3545	A31		
	2138	D 6	3546	A31		
	2501	I26	3547	A28		
	2502	I27	3560	I 3		
	2503	N29	3561	I28		
	2504	E31	3562	I27		
	2505	F31	3563	I26		
	2506	G31	3600	L 5		
I	2507	H32	3601	K 5		
	2508	H27	3602	M 4		
	2509	M31	3603	J 5		
	2510	M31	3604	N 9		
	2511	N31	3605	O11		
	2512	O32	3606	N10		
	2514	C29	3607	O12		
	2515	A31	3608	N12		
J	2516	A32	3609	M13		
	2517	A29	3610	N13		
	2519	I 5	3611	O12		
	2520	I 3	3612	M 4		
	2521	I20	3615	I 5		
	2523	D26	3618	N 8		
	2524	D26	3619	O 5		
	2525	D26	3620	N 6		
	2526	C26	3622	M 6		
K	2527	C28	3623	O 4		
	2528	O24	3624	N 3		
	2530	A32	3625	N 3		
	2600	O11	3626	O 3		
	2601	M10	3627	P 3		
	2602	M 5	3638	O 6		
	2603	N12	3655	M 9		
	2604	P12	3656	L 7		
L	2605	O13	3657	L 7		
	2606	N13	5000	E20		
	2607	M 4	5001	B18		
	2608	K 5	5002	C16		
	2617	N 2	5004	O18		
	2618	N 7	5005	M18		
	2619	N 4	5020	N18		
	2620	O 6	5026	P16		
	2621	N 6	5036	N19		
M	2622	P 7	5115	C27		
	2646	K 8	5130	D 5		
	2647	K 8	5601	L 8		
	2648	I 7	5602	N 9		
	2650	K 5	5603	O 7		
	2651	K 6	5604	M 6		
	2652	K 7	5605	N10		
	2656	M 8	5831	A12		
N	2657	L 8	6135	D 6		
	2831	C12	6500	B31		
	3000	P14	6501	C32		
	3001	P16	6502	F32		
	3002	P18	6509	J32		
	3003	P18	6510	J32		
	3004	O19	6511	L31		
	3005	N18	6512	K32		
	3006	K 7	6513	I32		
	3007	O14	6516	A31		
	3008	M21	6530	M26		
	3009	O14	6601	K 6		
	3010	D21	7000	O19		
	3011	P19	7001	O16		
	3012	D20	7002	L21		
	3013	L20	7003	C20		
	3014	M19	7004	O17		
	3015	D14	7005	F22		
	3016	D13	7006	O20		
	3017	B12	7007	H10		
	3018	P17	7008	E19		
	3019	D11	7009	N21		
	3020	N15	7011	N17		
	3021	D10	7021	P13		

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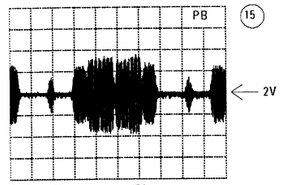
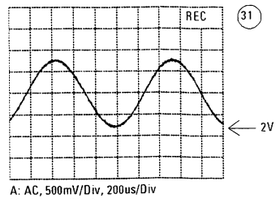
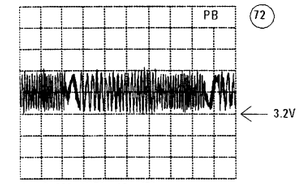


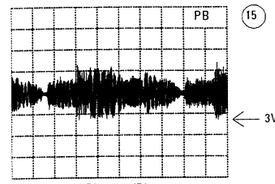
A: AC, 100mV/Div, 10us/Div
IC 7007 Pin 46 (PAL)



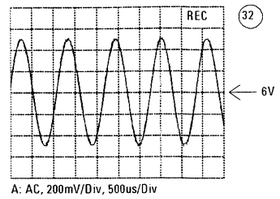
A: AC, 500mV/Div, 200us/Div
Modulator Pin 3



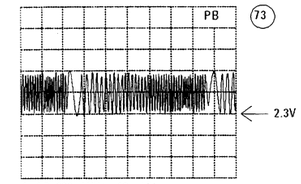
A: AC, 200mV/Div, 10us/Div
IC 7007 Pin 15



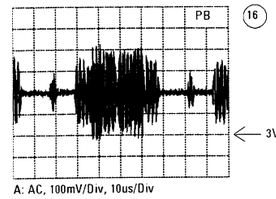
A: AC, 100mV/Div, 10us/Div
IC 7007 Pin 46 (SECAM L)



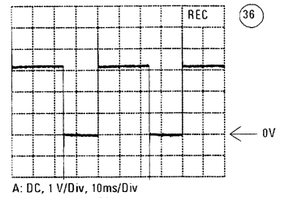
A: AC, 200mV/Div, 500us/Div
C 2503



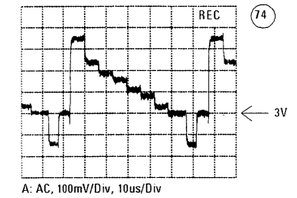
A: AC, 200mV/Div, 10us/Div
IC 7007 Pin 20



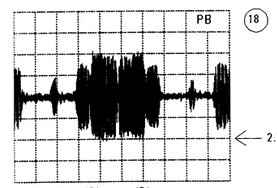
A: AC, 100mV/Div, 10us/Div
IC 7007 Pin 52



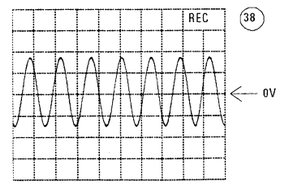
A: DC, 1 V/Div, 10ms/Div
Connector 1961 Pin 7



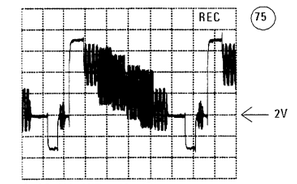
A: AC, 100mV/Div, 10us/Div
IC 7007 Pin 26



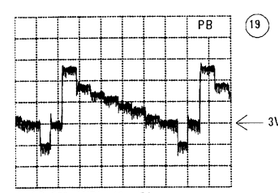
A: AC, 100mV/Div, 10us/Div
IC 7007 Pin 48/50



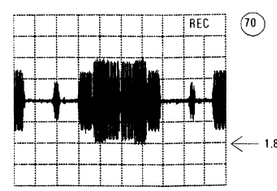
A: DC, 1 V/Div, 10us/Div
Connector 1951 Pin 1



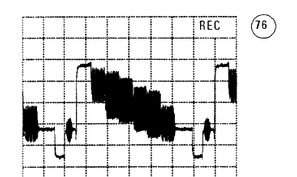
A: AC, 200mV/Div, 10us/Div
IC 7007 Pin 28



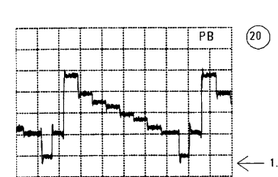
A: AC, 500mV/Div, 10us/Div
IC 7007 Pin 40



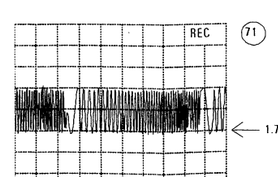
A: AC, 100mV/Div, 10us/Div
IC 7007 Pin 14



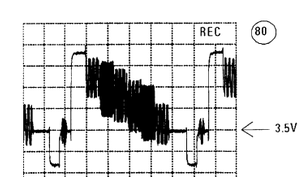
A: DC, 500mV/Div, 10us/Div
IC 7007 Pin 38



A: AC, 100mV/Div, 10us/Div
IC 7007 Pin 42



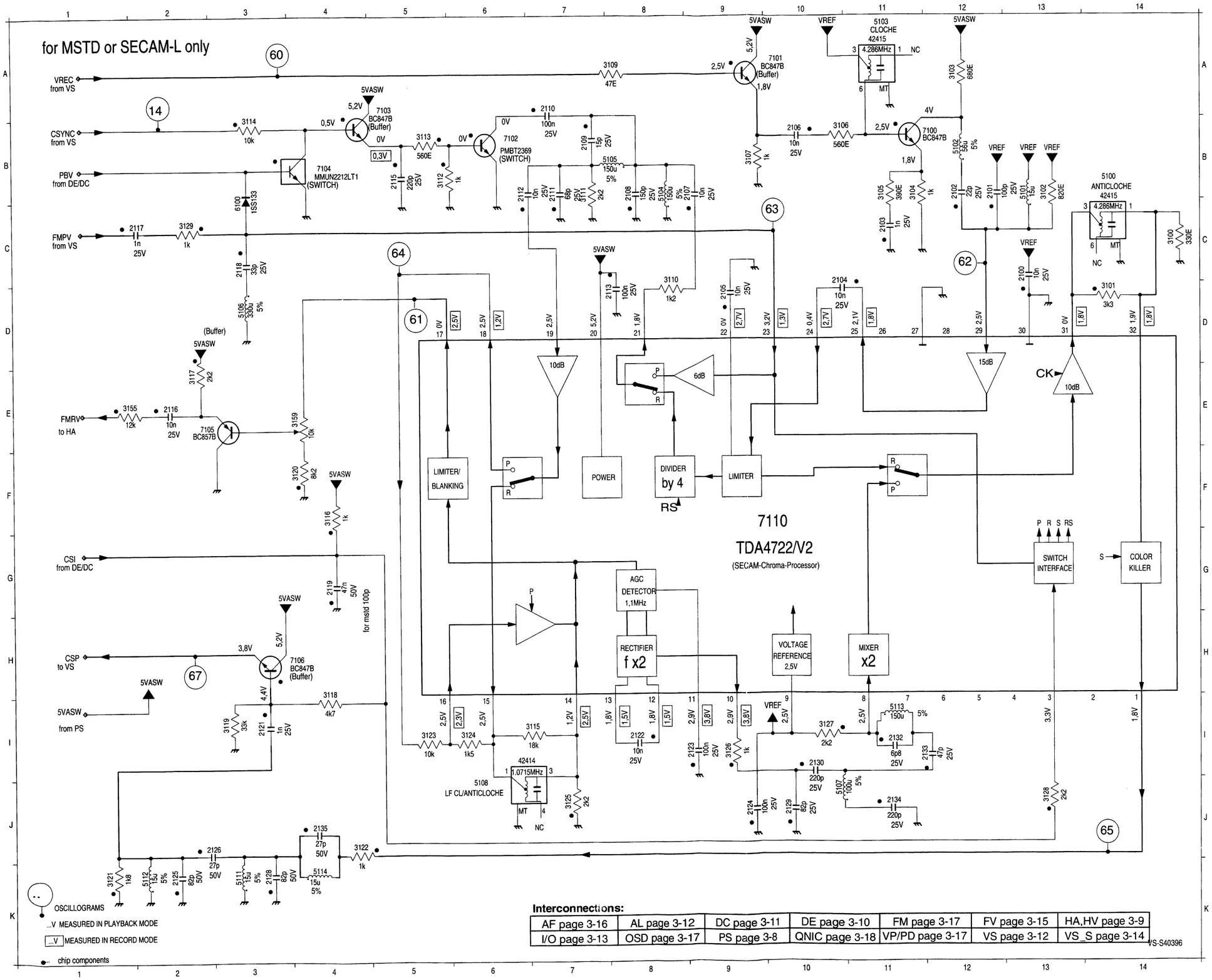
A: AC, 200mV/Div, 10us/Div
IC 7007 Pin 18



A: AC, 100mV/Div, 10us/Div
T 7500 Emitter

3-14

Video Signal Processing Secam (VS_S)



Interconnections:

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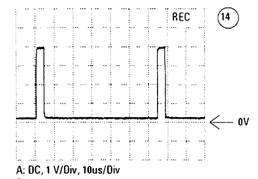
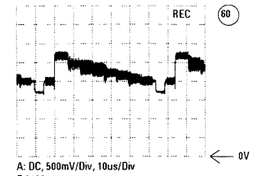
VS-S40396

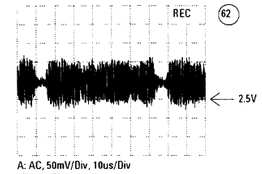
2100 C13
2101 B12
2102 B12
2103 C11
2104 C10
2105 D 9
2106 B10
2107 B 9
2108 B 8
2109 B 7
2110 A 7
2111 B 7
2112 B 6
2113 D 8
2115 B 5
2116 E 2
2117 C 2
2118 C 3
2119 G 4
2121 I 3
2122 I 8
2123 I 9
2124 J 9
2125 K 2
2126 J 2
2128 K 3
2129 J10
2130 I10
2132 I11
2133 I11
2134 J11
2135 J 4
3100 C14
3101 D14
3102 B13
3103 A12
3104 B11
3105 B11
3106 B10
3107 B 9
3109 A 8
3110 C 8
3111 B 7
3112 B 5
3113 B 5
3114 A 3
3115 I 6
3116 F 4
3117 E 2
3118 H 4
3119 I 3
3120 F 4
3121 K 1
3122 J 4
3123 I 5
3124 I 6
3125 J 7
3126 I 9
3127 I10
3128 J13
3129 C 2
3155 E 1
3159 E 4
5100 B14
5101 B13
5102 B12
5103 A11
5104 B 8
5105 B 8
5106 D 3
5107 J10
5108 J 6
5111 K 3
5112 K 2
5113 I11
5114 K 4
6100 B 3
7100 B11
7101 A10
7102 B 6
7103 A 5
7104 B 4
7105 E 3
7106 H 3
7110 F 9



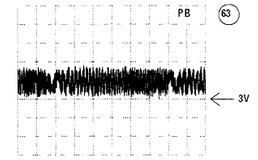
A: DC, 1 V/Div, 10us/Div
R 3114



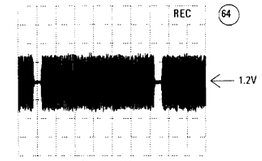
A: DC, 500mV/Div, 10us/Div
R 3109



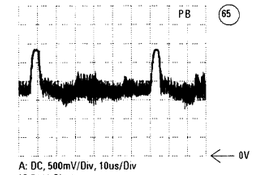
A: AC, 50mV/Div, 10us/Div
IC 7110 Pin 29



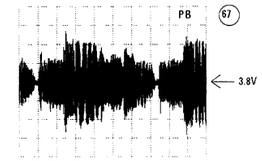
A: AC, 200mV/Div, 10us/Div
IC 7110 Pin 23



A: AC, 200mV/Div, 10us/Div
IC 7110 Pin 18



A: DC, 500mV/Div, 10us/Div
IC 7110 Pin 1

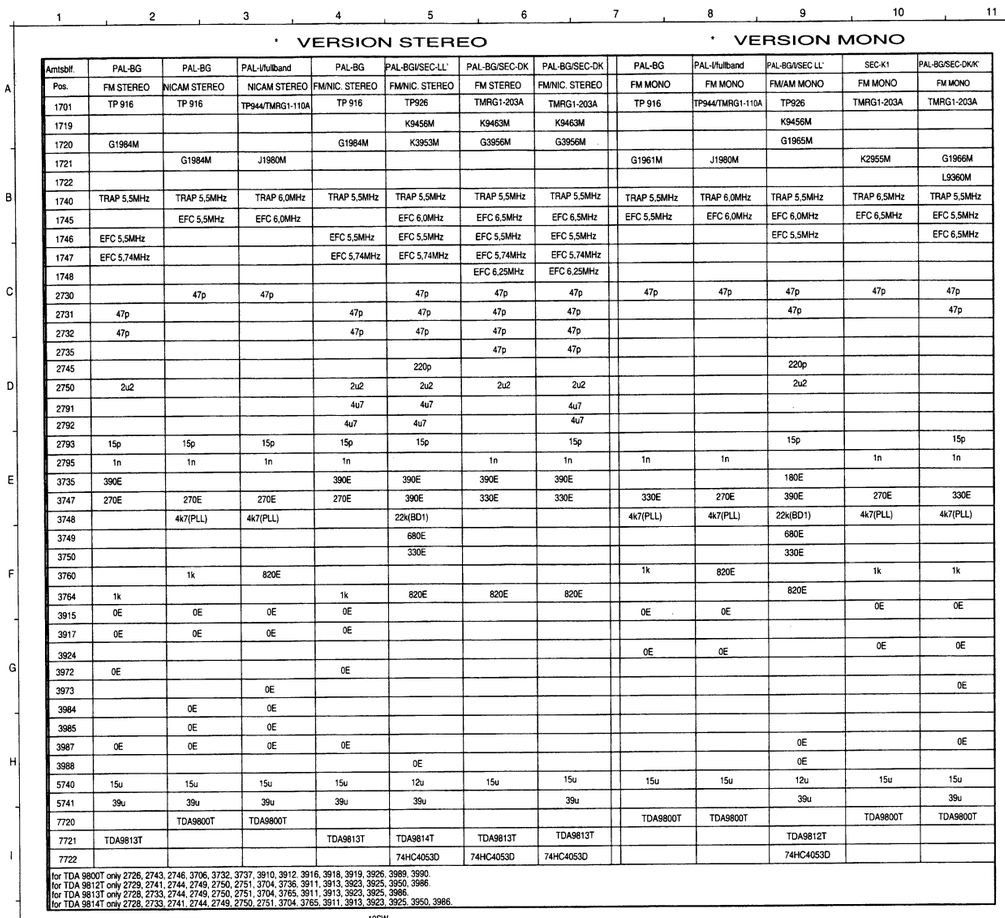


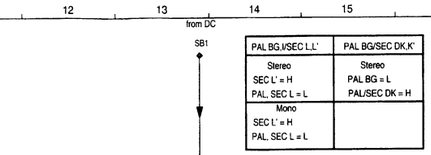
A: AC, 50mV/Div, 10us/Div
Emitter 7106

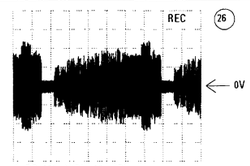
Frontend (FV)

Amtsblf.	PAL-BG	PAL-BG	PAL-I/fullband	PAL-BG	PAL-BGI/SEC-LL'	PAL-BG/SEC-DK	PAL-BG/SEC-DK	PAL-BG	PAL-I/fullband	PAL-BGI/SEC LL'	SEC-K1	PAL-BG/SEC-DK/K'
Pos.	FM STEREO	NICAM STEREO	NICAM STEREO	FM/NIC. STEREO	FM/NIC. STEREO	FM STEREO	FM/NIC. STEREO	FM MONO	FM MONO	FM/AM MONO	FM MONO	FM MONO
1701	TP 916	TP 916	TP944/TMRG1-110A	TP 916	TP926	TMRG1-203A	TMRG1-203A	TP 916	TP944/TMRG1-110A	TP926	TMRG1-203A	TMRG1-203A
1719					K9456M	K9463M	K9463M			K9456M		
1720	G1984M			G1984M	K3953M	G3956M	G3956M			G1965M		
1721		G1984M	J1980M					G1961M	J1980M		K2955M	G1966M
1722												L9360M
1740	TRAP 5,5MHz	TRAP 5,5MHz	TRAP 6,0MHz	TRAP 5,5MHz	TRAP 5,5MHz	TRAP 5,5MHz	TRAP 5,5MHz	TRAP 5,5MHz	TRAP 6,0MHz	TRAP 5,5MHz	TRAP 6,5MHz	TRAP 5,5MHz
1745		EFC 5,5MHz	EFC 6,0MHz		EFC 6,0MHz	EFC 6,5MHz	EFC 6,5MHz	EFC 5,5MHz	EFC 6,0MHz	EFC 6,0MHz	EFC 6,5MHz	EFC 5,5MHz
1746	EFC 5,5MHz			EFC 5,5MHz	EFC 5,5MHz	EFC 5,5MHz	EFC 5,5MHz			EFC 5,5MHz		EFC 6,5MHz
1747	EFC 5,74MHz			EFC 5,74MHz	EFC 5,74MHz	EFC 5,74MHz	EFC 5,74MHz					
1748						EFC 6,25MHz	EFC 6,25MHz					
2730		47p	47p		47p	47p	47p	47p	47p	47p	47p	47p
2731	47p			47p	47p	47p	47p			47p		47p
2732	47p			47p	47p	47p	47p					
2735						47p	47p					
2745					220p					220p		
2750	2u2			2u2	2u2	2u2	2u2			2u2		
2791				4u7	4u7		4u7					
2792				4u7	4u7		4u7					
2793	15p	15p	15p	15p	15p		15p			15p		15p
2795	1n	1n	1n	1n		1n	1n	1n	1n		1n	1n
3735	390E			390E	390E	390E	390E			180E		
3747	270E	270E	270E	270E	390E	330E	330E	330E	270E	390E	270E	330E
3748		4k7(PLL)	4k7(PLL)		22k(BD1)			4k7(PLL)	4k7(PLL)	22k(BD1)	4k7(PLL)	4k7(PLL)
3749					680E					680E		
3750					330E					330E		
3760		1k	820E					1k	820E		1k	1k
3764	1k			1k	820E	820E	820E			820E		
3915	0E	0E	0E	0E				0E	0E		0E	0E
3917	0E	0E	0E	0E								
3924								0E	0E		0E	0E
3972	0E			0E								
3973			0E									0E
3984		0E	0E									
3985		0E	0E									
3987	0E	0E	0E	0E						0E		0E
3988					0E					0E		
5740	15u	15u	15u	15u	12u	15u	15u	15u	15u	12u	15u	15u
5741	39u	39u	39u	39u	39u		39u			39u		39u
7720		TDA9800T	TDA9800T					TDA9800T	TDA9800T		TDA9800T	TDA9800T
7721	TDA9813T			TDA9813T	TDA9814T	TDA9813T	TDA9813T			TDA9812T		
7722					74HC4053D	74HC4053D	74HC4053D			74HC4053D		

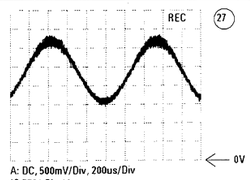
for TDA 9800T only 2726, 2743, 2746, 3706, 3732, 3737, 3910, 3912, 3916, 3918, 3919, 3926, 3989, 3990.
for TDA 9812T only 2729, 2741, 2744, 2749, 2750, 2751, 3704, 3736, 3911, 3913, 3923, 3925, 3950, 3986.
for TDA 9813T only 2728, 2733, 2744, 2749, 2750, 2751, 3704, 3765, 3911, 3913, 3923, 3925, 3986.
for TDA 9814T only 2728, 2733, 2741, 2744, 2749, 2750, 2751, 3704, 3765, 3911, 3913, 3923, 3925, 3950, 3986.



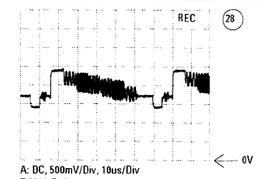




A: DC, 100mV/Div, 10us/Div
Tuner Pin 17

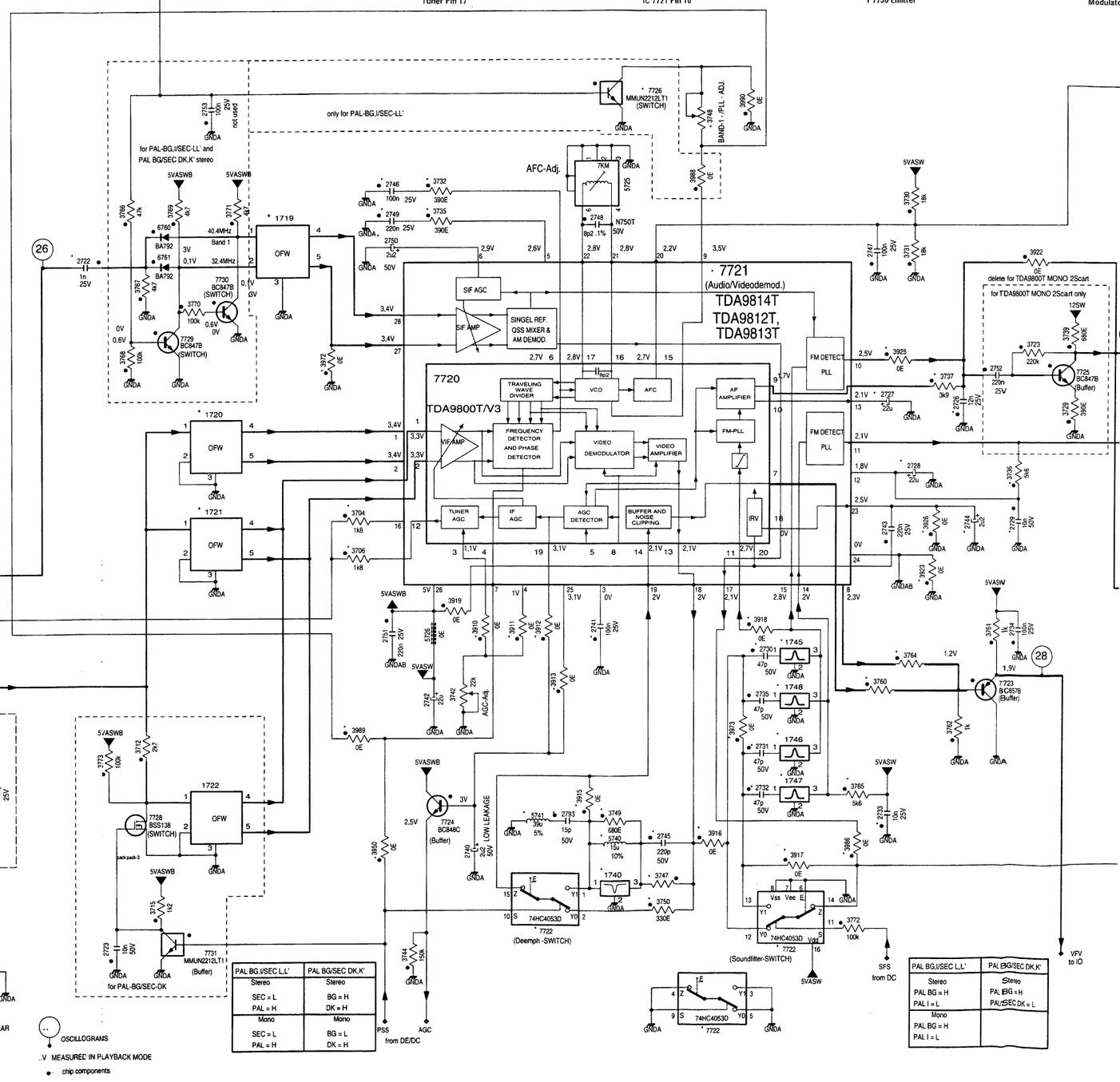


A: DC, 500mV/Div, 200us/Div
IC 7721 Pin 10



A: DC, 500mV/Div, 10us/Div
T 7730 Emitter

A: AC, 50
Modulate



PAL BG,I/SEC L,L'	PAL BG/SEC DK,K'
Stereo SEC = L PAL = H	Stereo BG = H DK = H
Mono SEC = L PAL = H	Mono BG = L DK = H

PAL BG,I/SEC L,L'	PAL BG/SEC DK,K'
Stereo PAL BG = H PAL I = L	Stereo PAL BG = H PAL/SEC DK = L
Mono PAL BG = H PAL I = L	

PAL BG,I/SEC L,L'	PAL BG/SEC DK,K'
Stereo SEC L' = H PAL, SEC L = L	Stereo PAL BG = L PAL/SEC DK = H
Mono SEC L' = H PAL, SEC L = L	

A: DC, 100mV/Div, 10us/Div
Tuner Pin 17

A: DC, 500mV/Div, 200us/Div
IC 7721 Pin 10

A: DC, 500mV/Div, 10us/Div
T 7730 Emitter

A: AC, 500mV/Div, 200us/Div
Modulator Pin 3

A: AC, 100mV/Div, 10us/Div
T 7500 Emitter

A: AC, 500mV/Div, 500us/Div
IC 7850 Pin 1, 2

7721
(Audio/Videodemod.)
TDA9814T
TDA9812T,
TDA9813T

7720
TDA9800T/V3

7780
TDA9840T/V2
(Stereodecoder)
FM STEREO only

1970
(QNIC)

PAL BG,I/SEC L,L'	PAL BG/SEC DK,K'
Stereo SEC = L PAL = H	Stereo BG = H DK = H
Mono SEC = L PAL = H	Mono BG = L DK = H

PAL BG,I/SEC L,L'	PAL BG/SEC DK,K'
Stereo PAL BG = H PAL I = L	Stereo PAL BG = H PAL/SEC DK = L
Mono PAL BG = H PAL I = L	

Interconnections:

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5VASW from PS
12SW from PS
5VA from PS
33V from PS

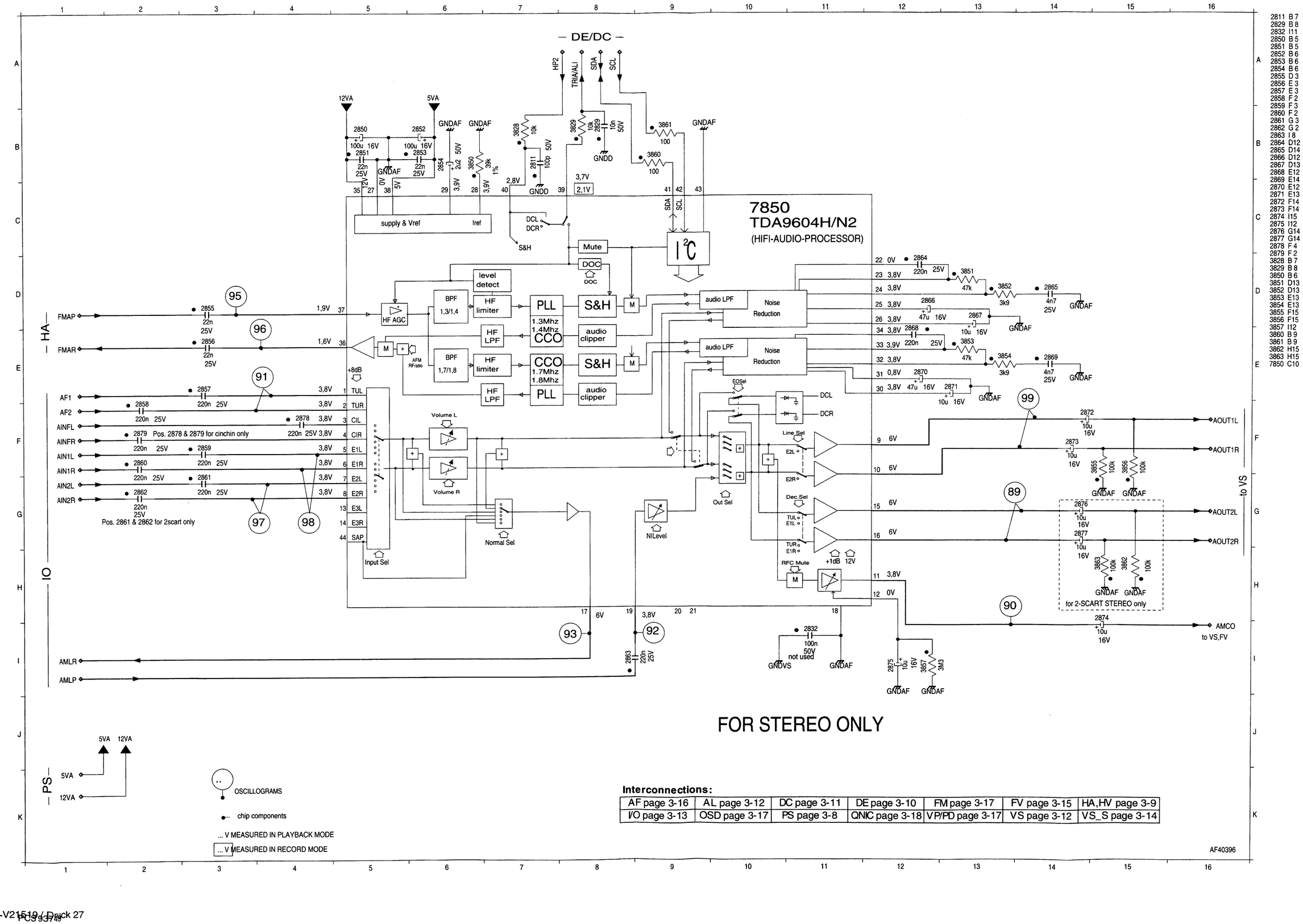
OSCILLOGRAMS
MEASURED IN PLAYBACK MODE
chip components

FV40396

	1701 K 3	5700 K 5
	1719 E15	5702 P 3
	1720 H14	5703 J 4
	1721 I14	5705 P 7
	1722 M14	5720 M 8
A	1740 N19	5721 L10
	1745 K22	5725 E20
	1746 L22	5726 K17
	1747 M22	5740 M20
	1748 K22	5741 M18
	1781 E32	5780 F28
	1908 P11	6760 E13
	1910 P10	6761 F13
	1975 K30	7720 G17
	2700 J 4	7721 F21
B	2701 P 4	7722 O22
	2702 P 6	7722 O19
	2704 J 3	7722 P21
	2705 P 5	7723 K25
	2706 L11	7724 M17
	2707 M11	7725 G26
	2708 K 6	7726 C20
	2709 P 5	7728 M13
C	2710 P 7	7729 G14
	2715 O 8	7730 F14
	2716 O 8	7731 O14
	2722 F12	7780 H30
	2723 O13	9005 O 9
	2726 H24	
	2727 G23	
	2728 H23	
D	2729 I25	
	2730 K22	
	2731 L21	
	2732 M21	
	2733 M23	
	2734 K25	
	2735 K21	
	2740 M18	
	2741 J19	
E	2742 K17	
	2743 I23	
	2744 I24	
	2745 M20	
	2746 E17	
	2747 E23	
	2748 E19	
	2749 E17	
F	2750 E16	
	2751 K16	
	2752 G25	
	2753 D14	
	2780 E28	
	2781 E28	
	2782 F28	
	2783 F28	
G	2784 E27	
	2785 F28	
	2786 G28	
	2787 G28	
	2788 E33	
	2789 F33	
	2790 F33	
	2791 H28	
	2792 H28	
H	2793 M19	
	2794 P 6	
	2795 K10	
	2796 J31	
	3702 N 9	
	3703 O 9	
	3704 I16	
	3705 P 6	
	3706 J16	
I	3707 M 9	
	3708 M 9	
	3709 L10	
	3712 L13	
	3715 N13	
	3723 G25	
	3725 J 5	
	3726 K 7	
	3729 H26	
	3730 E23	
	3731 E23	
	3732 E17	
	3735 E17	
	3736 H25	
	3737 G24	
	3739 G26	
	3742 K17	
	3744 O17	
	3747 N20	
	3748 D21	
	3749 M20	
	3750 N20	
	3760 K23	
	3761 K25	
	3762 L24	
L	3764 K23	
	3765 M23	
	3766 E13	
	3767 F13	
	3768 G13	
	3769 E14	
	3770 F14	
	3771 E14	
	3772 N23	
	3773 L13	
	3780 D28	
	3781 D32	
	3782 G28	
	3790 G27	
	3791 G27	
	3792 H27	
	3793 H27	
N	3910 K18	
	3911 K18	
	3912 K18	
	3913 K19	
	3914 J 2	
	3915 M19	
	3916 M21	
	3917 N22	
O	3918 J21	
	3919 J17	
	3922 F25	
	3923 J24	
	3925 G23	
	3926 I24	
	3950 M16	
	3972 G16	
	3973 L21	
	3984 I30	
P	3985 I30	
	3986 M23	
	3988 D21	
	3989 L16	
	3990 C21	

3-16

Audio FM Processing (AF)



Interconnections:

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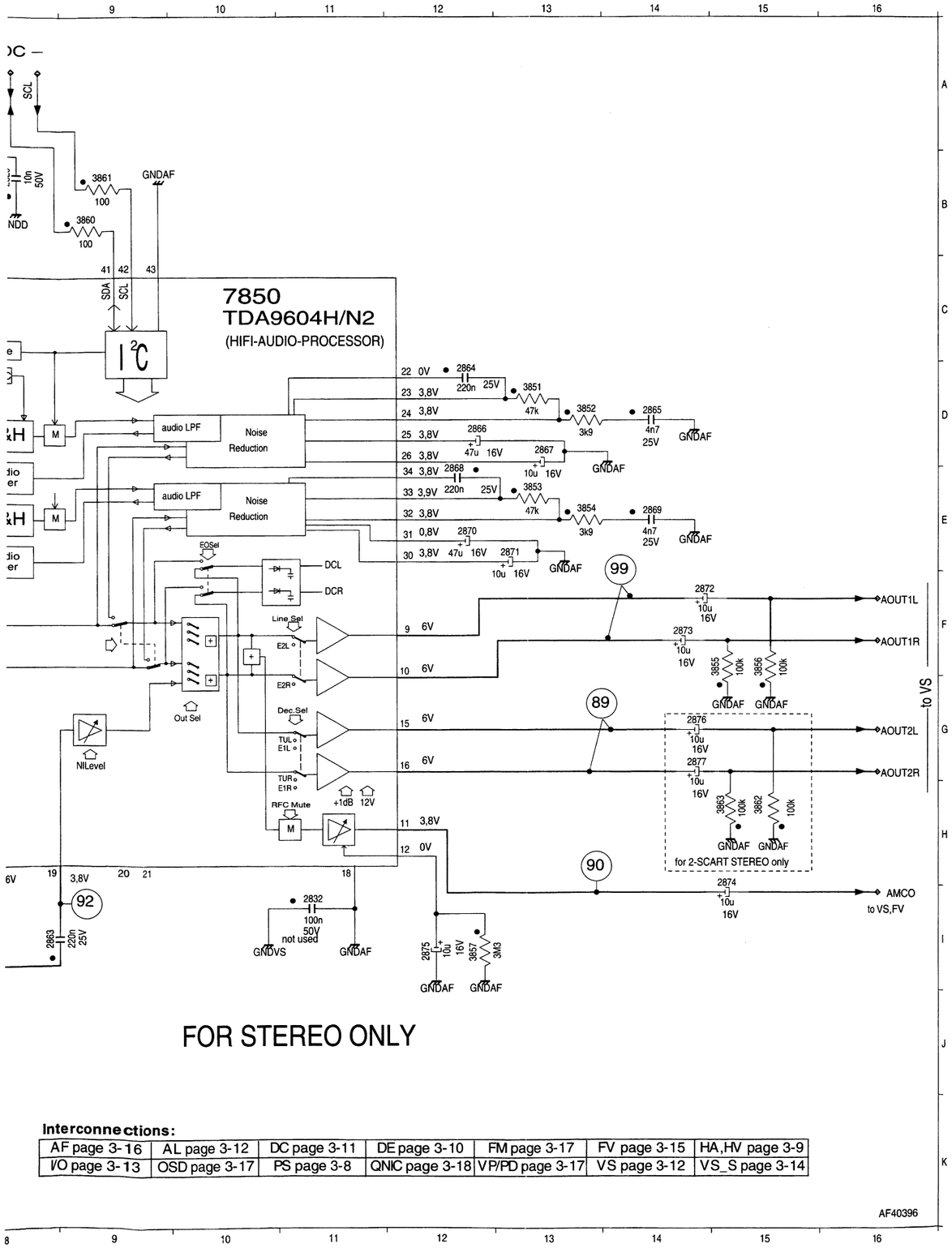
2811 B 7
2829 B 8
2832 I 11
2850 B 5
2851 B 5
2852 B 6
2853 B 6
2854 B 6
2855 D 3
2856 E 3
2857 E 3
2858 F 2
2859 F 3
2860 F 2
2861 G 3
2862 G 2
2863 I 8
2864 D12
2865 D14
2866 D12
2867 D13
2868 E12
2869 E14
2870 E12
2871 E13
2872 F14
2873 F14
2874 I15
2875 I12
2876 G14
2877 G14
2878 F 4
2879 F 2
3828 B 7
3829 B 8
3850 B 6
3851 D13
3852 D13
3853 E13
3854 E13
3855 F15
3856 F15
3857 I12
3860 B 9
3861 B 9
3862 H15
3863 H15
7850 C10



2811	B 7
2829	B 8
2832	I 11
2850	B 5
2851	B 5
2852	B 6
2853	B 6
2854	B 6
2855	D 3
2856	E 3
2857	E 3
2858	F 2
2859	F 3
2860	F 2
2861	G 3
2862	G 2
2863	I 8
2864	D12
2865	D14
2866	D12
2867	D13
2868	E12
2869	E14
2870	E12
2871	E13
2872	F14
2873	F14
2874	I15
2875	I12
2876	G14
2877	G14
2878	F 4
2879	F 2
3828	B 7
3829	B 8
3850	B 6
3851	D13
3852	D13
3853	E13
3854	E13
3855	F15
3856	F15
3857	I12
3860	B 9
3861	B 9
3862	H15
3863	H15
7850	C10

FOR STEREO ONLY

Interconnections:

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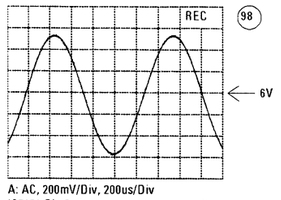
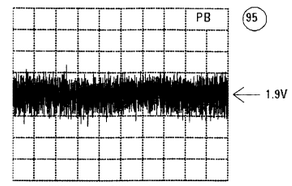
I/O page 3-13	OSD page 3-17	PS page 3-8	QNIC page 3-18	VP/PD page 3-17	VS page 3-12	VS_S page 3-14

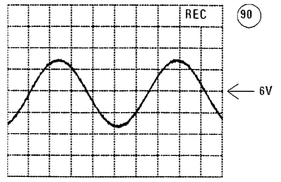
AF40396



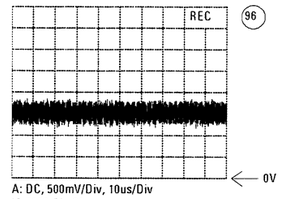
A: AC, 200mV/Div, 200us/Div
IC7850 Pin 5, 6



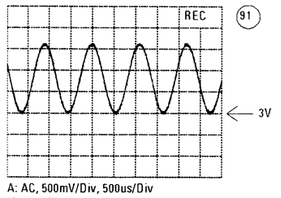
A: AC, 200mV/Div, 100us/Div
IC 7850 Pin 37



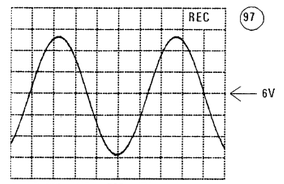
A: AC, 500mV/Div, 200us/Div
IC 7850 Pin 11



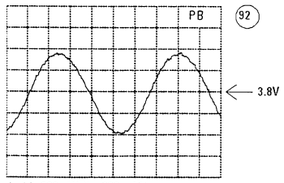
A: DC, 500mV/Div, 10us/Div
IC 7850 Pin 36



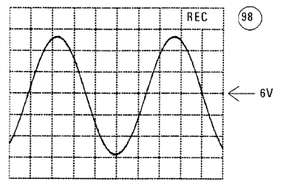
A: AC, 500mV/Div, 500us/Div
IC 7850 Pin 1, 2



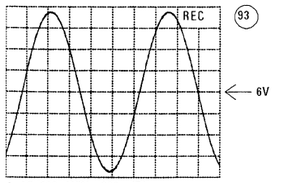
A: AC, 200mV/Div, 200us/Div
IC7850 Pin 7, 8



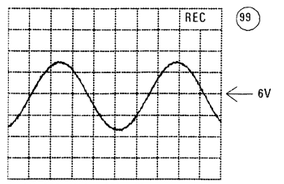
A: AC, 200mV/Div, 200us/Div
IC 7850 Pin 19



A: AC, 200mV/Div, 200us/Div
IC7850 Pin 5, 6

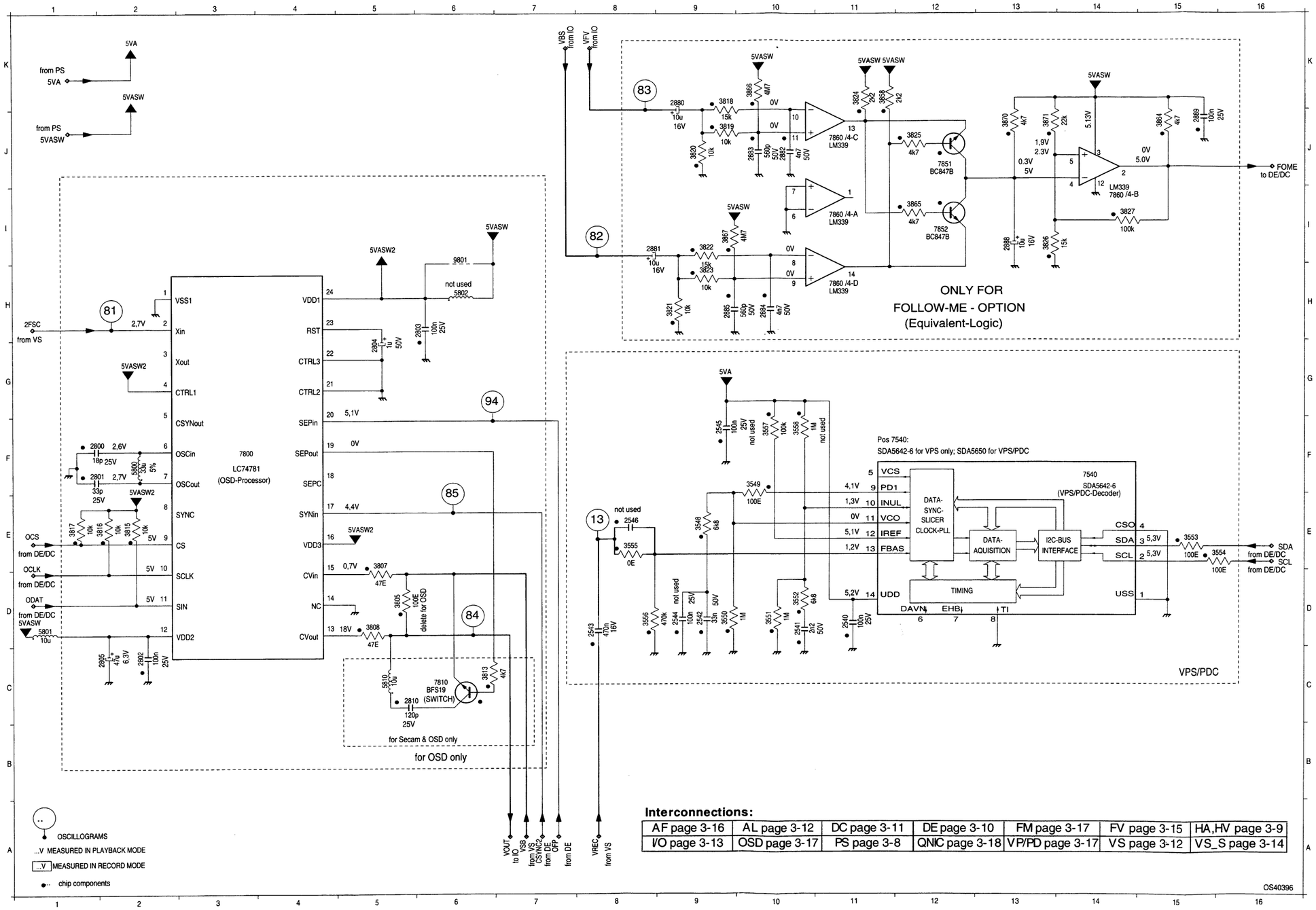


A: AC, 200mV/Div, 200us/Div
IC 7850 Pin 17



A: AC, 500mV/Div, 200us/Div
IC 7850 Pin 9, 10

On Screen Display (OS), Follow Me (FM), Video Programming System / Programm Delivery Control (VP/PD)



Interconnections:

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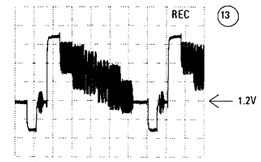
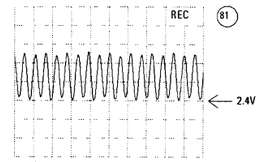
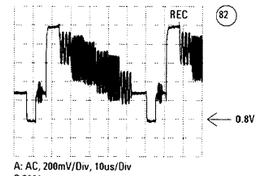
9801 C 6
7860 B11
7860 D11
7860 C11
7860 B14
7852 C12
7851 B12
7810 I 6
7800 F 3
7540 F14
5810 I 5
5802 D 6
5801 H 1
5800 F 2
3871 A13
3870 A13
3867 C 9
3866 A10
3865 C12
3864 A15
3858 A11
3827 C14
3826 C13
3825 B12
3824 A11
3823 C 9
3822 C 9
3821 D 9
3820 B 9
3819 B 9
3818 A 9
3817 G 1
3816 G 2
3815 G 2
3813 I 6
3808 H 5
3807 G 5
3805 H 5
3558 E10
3557 F10
3556 H 8
3555 G 8
3554 G16
3553 G15
3552 H10
3551 H10
3550 H 9
3549 F10
3548 G 9
2889 A15
2888 C13
2885 D 9
2884 D10
2883 B10
2882 B10
2881 C 8
2880 A 9
2810 I 5
2805 H 2
2804 D 5
2803 D 6
2802 H 2
2801 F 1
2800 F 1
2546 G 8
2545 E 9
2544 H 9
2543 H 8
2542 H 9
2541 H10
2540 H11



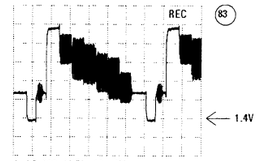
A: AC, 200mV/Div, 10us/Div
IC 7540 Pin 13



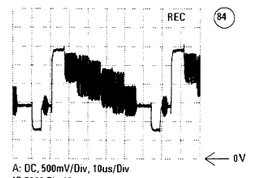
A: AC, 200mV/Div, 200ns/Div
IC 7800 Pin 2



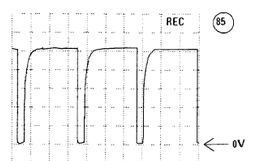
A: AC, 200mV/Div, 10us/Div
C 2881



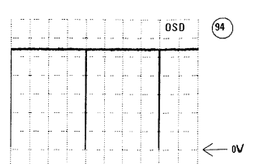
A: AC, 200mV/Div, 10us/Div
C 2880



A: DC, 500mV/Div, 10us/Div
IC 7800 Pin 13



A: DC, 1 V/Div, 20us/Div
IC 7800 Pin 17



A: DC, 1 V/Div, 5ms/Div
IC 7800 Pin 20

3-18

Nicam Board (QNIC)

7700
SAA7284ZP/M2

IIC
CARRIER VCO
DEMO
PHASE DET DATA SLICER
BIT RATE CLOCK RECOVERY
DET
NICAM DECODER + CONTROLLER
OSC 8.192MHZ
DIGITAL FILTER + J17
DAC L
DAC R
7701 LM358N
7701 LM358N

Interconnections:

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TO QMB 1975

A: AC, 100mV/Div, 200us/Div
Connector 1970 Pin 7 8

A: AC, 200mV/Div, 200us/Div
IC 7700 Pin 8, 15

A: AC, 200mV/Div, 200us/Div
IC 7701 Pin 1, 7

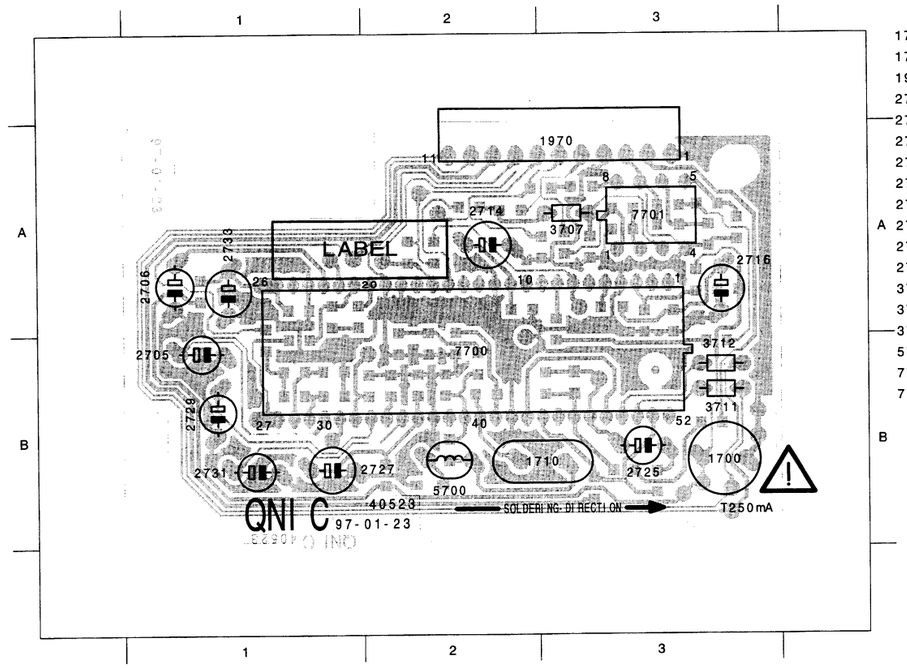
OSCILLOGRAMS

..V MEASURED IN PLAYBACK MODE

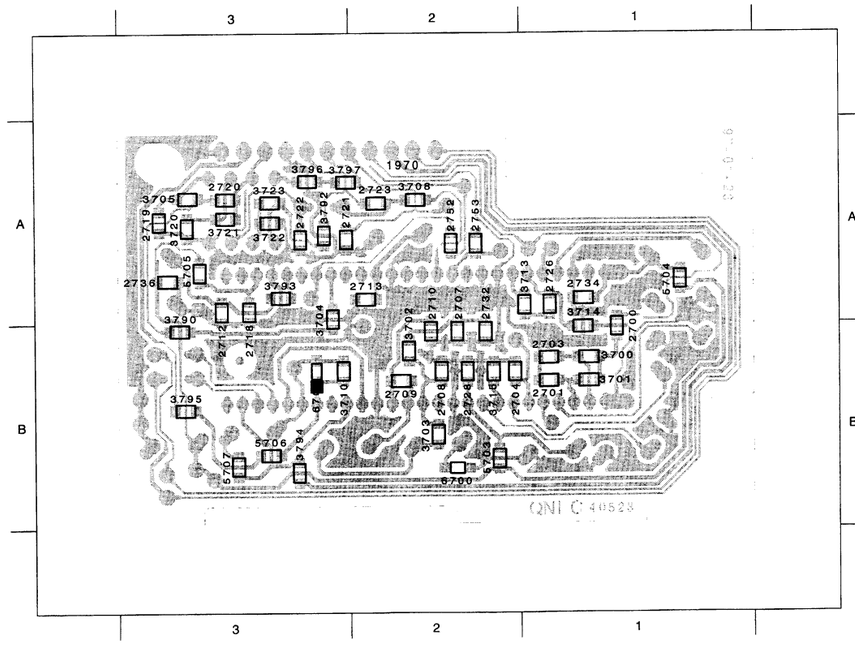
●..chip components

QNIC(40523)

Nicam Board (QNIC)

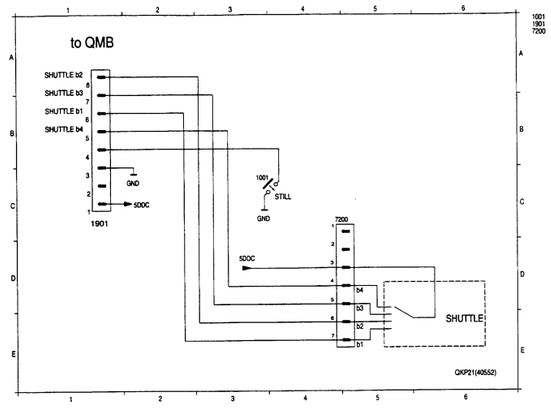


1700 B 3
1710 B 3
1970 A 3
2705 B 1
2706 A 1
2714 A 2
2716 A 3
2725 B 3
2727 B 1
A 2729 B 1
2731 B 1
2733 A 1
3707 A 3
3711 B 3
3712 B 3
5700 B 2
7700 B 2
7701 A 3

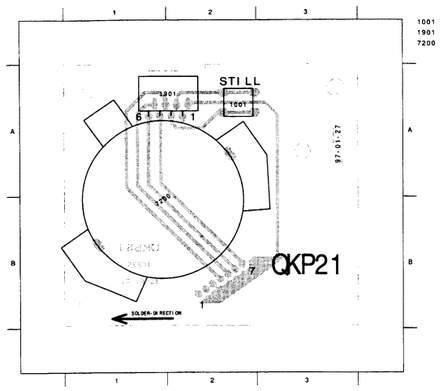


2700 B 1
2701 B 1
2703 B 1
2704 B 2
2707 B 2
2708 B 2
2709 B 2
2710 B 2
2712 A 3
A 2713 A 2
2718 A 3
2719 A 3
2720 A 3
2721 A 3
2722 A 3
2723 A 2
2726 A 1
2728 B 2
2732 B 2
B 2734 A 1
2736 A 3
2752 A 2
2753 A 2
3700 B 1
3701 B 1
3702 B 2
3703 B 2
3704 A 3
3705 A 3
3708 A 2
3710 B 3
3713 A 1
3714 B 1
3715 B 2
3720 A 3
3721 A 3
3722 A 3
3723 A 3
3790 B 3
3792 A 3
3793 A 3
3794 B 3
3795 B 3
3796 A 3
3797 A 3
5703 B 2
5704 A 1
5705 A 3
5706 B 3
5707 B 3
6700 B 2
6701 B 3

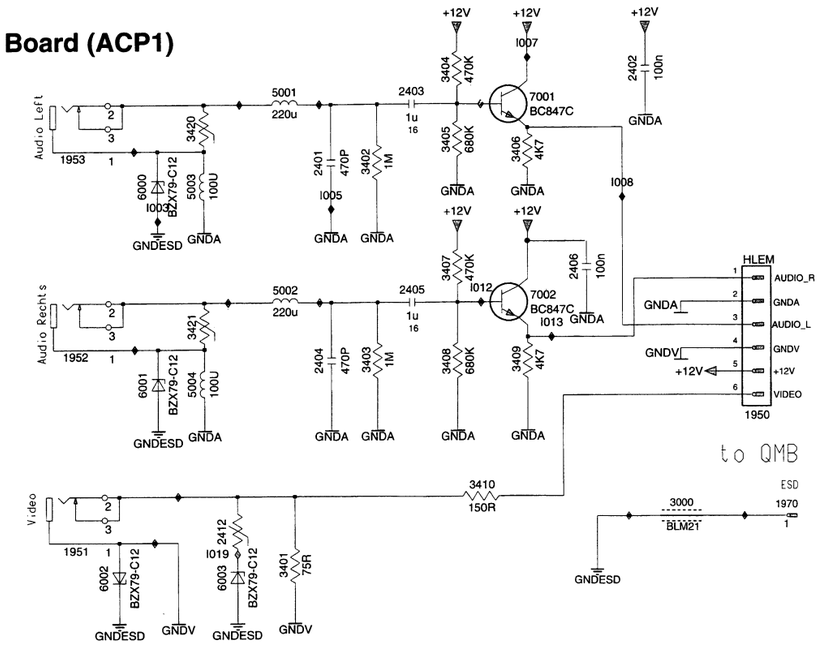
Shuttle Board (QKP21)

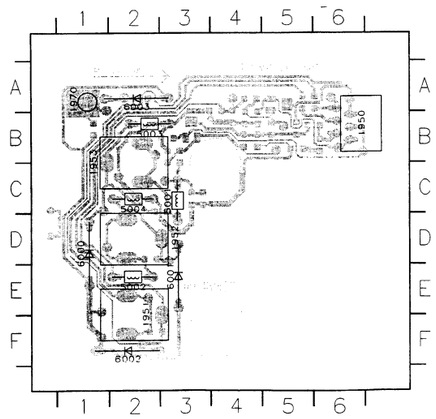


1001 A 2
1901 A 2
7200 B 2

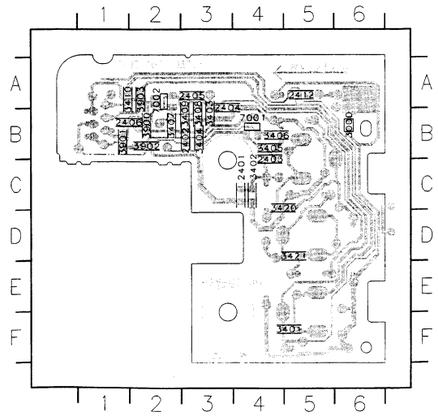


Socket Board (ACP1)





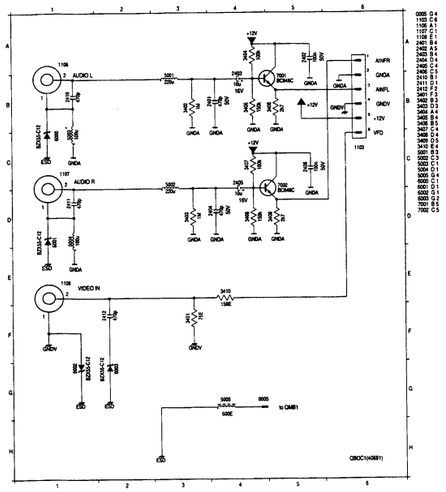
1950 B6
1951 F2
1952 D3
1953 B1
1970 A1
5001 C3
5002 B2
5003 B2
5004 C2
6000 D1
6001 D3
6002 F2
6003 A2

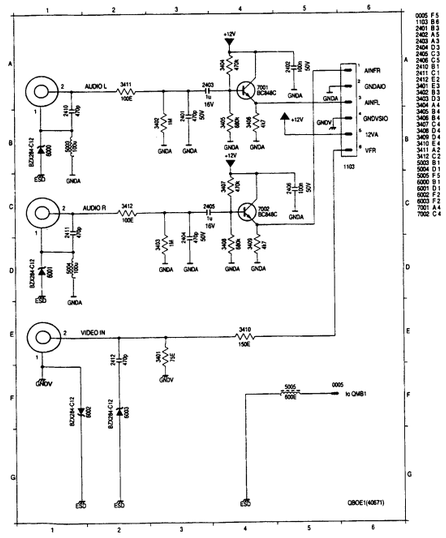


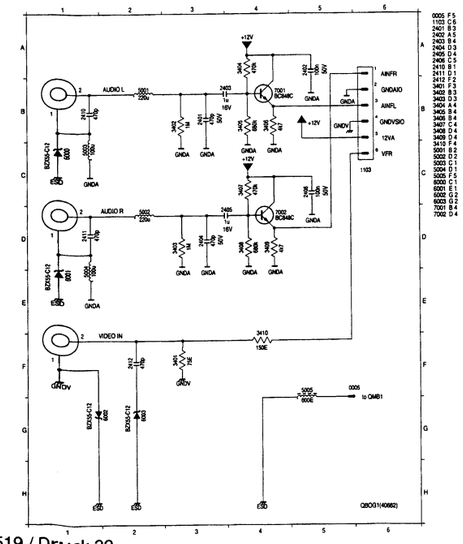
2401 C4
2402 B3
2403 B4
2404 A3
2405 A3
2406 B1
2412 A5
3000 B6
3401 F5
3402 C4
3403 B3
3404 B3
3405 B4
3406 B4
3407 B2
3408 B3
3409 B3
3410 A1
3420 C4
3421 D5
3900 B2
3901 B1
3902 B2
3903 A2
7001 B4
7002 A2

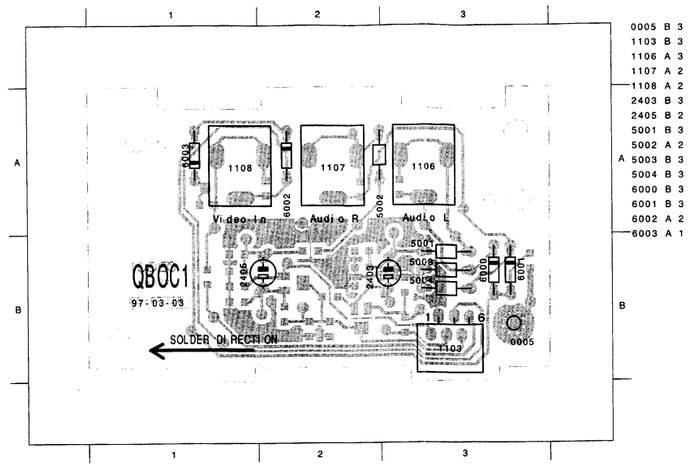
3-20

Socket Boards (QBOC1,QBOE1,QBOG1)

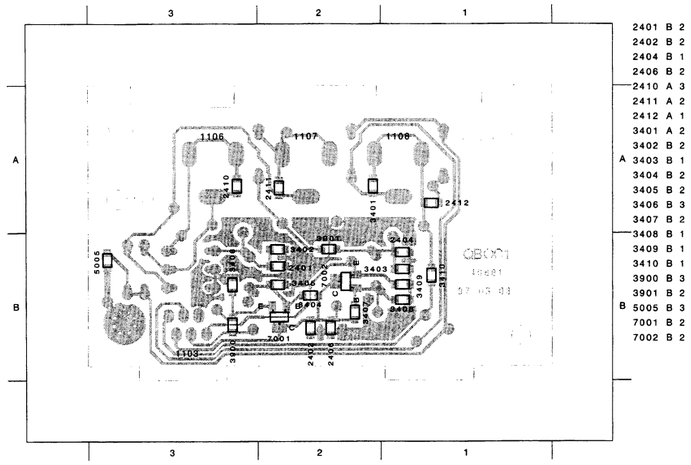




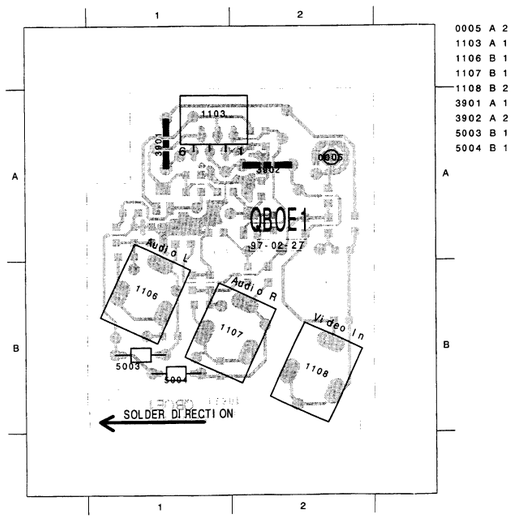




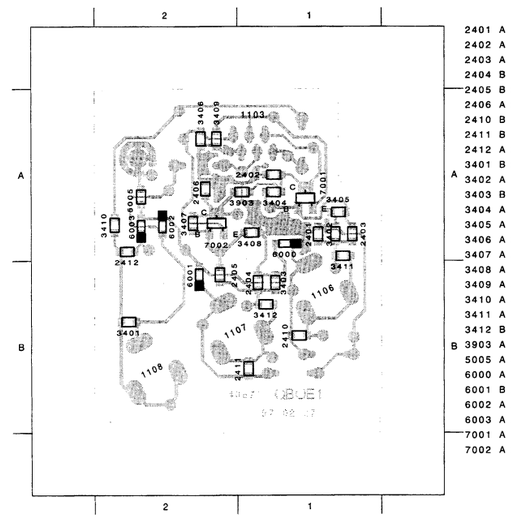
0005 B 3
1103 B 3
1106 A 3
1107 A 2
1108 A 2
2403 B 3
2405 B 2
5001 B 3
5002 A 2
A 5003 B 3
5004 B 3
6000 B 3
6001 B 3
6002 A 2
6003 A 1



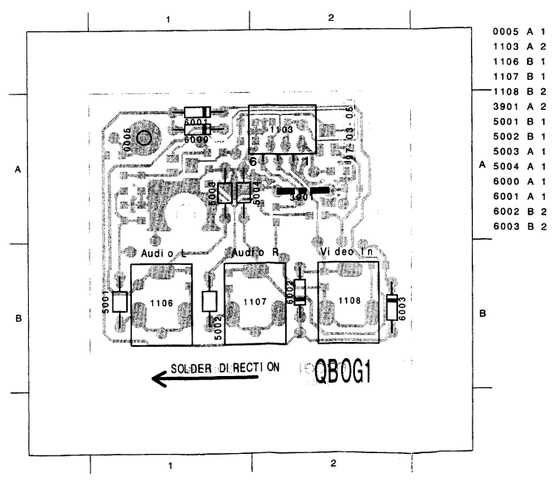
2401 B 2
2402 B 2
2404 B 1
2406 B 2
2410 A 3
2411 A 2
2412 A 1
3401 A 2
3402 B 2
A 3403 B 1
3404 B 2
3405 B 2
3406 B 3
3407 B 2
3408 B 1
3409 B 1
3410 B 1
3900 B 3
3901 B 2
B 5005 B 3
7001 B 2
7002 B 2



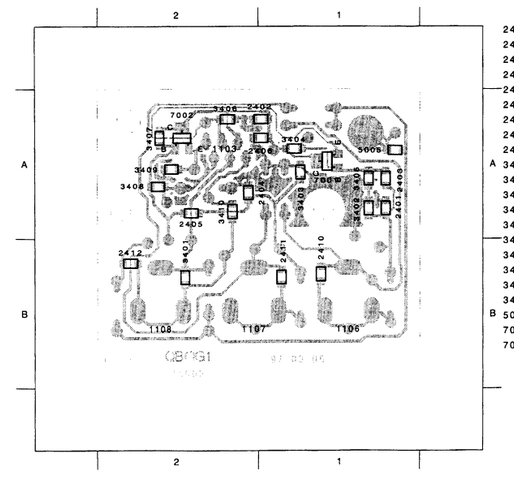
0005 A 2
1103 A 1
1106 B 1
1107 B 1
1108 B 2
3901 A 1
3902 A 2
5003 B 1
5004 B 1



2401 A 1
2402 A 1
2403 A 1
2404 B 1
2405 B 2
2406 A 2
2410 B 1
2411 B 1
2412 A 2
3401 B 2
A 3402 A 1
3403 B 1
3404 A 1
3405 A 1
3406 A 2
3407 A 2
3408 A 1
3409 A 2
3410 A 2
3411 A 1
3412 B 1
B 3903 A 1
5005 A 2
6000 A 1
6001 B 2
6002 A 2
6003 A 2
7001 A 1
7002 A 2



0005 A 1
1103 A 2
1106 B 1
1107 B 1
1108 B 2
3901 A 2
5001 B 1
5002 B 1
5003 A 1
A 5004 A 1
6000 A 1
6001 A 1
6002 B 2
6003 B 2



2401 A 1
2402 A 1
2403 A 1
2404 A 2
2405 A 2
2406 A 1
2410 B 1
2411 B 1
2412 B 2
A 3401 B 2
3402 A 1
3403 A 1
3404 A 1
3405 A 1
3406 A 2
3407 A 2
3408 A 2
3409 A 2
3410 A 2
B 5005 A 1
7001 A 1
7002 A 2

4. DRIVE ASSEMBLY

4.1 MECHANICAL PARTS LIST

Pos.	Description	KITS								Code number 4822
		B	I	L	P	Q	R	S	T	
1	Rec. protection lever (with spring)									402 10202
2	Chassis mounting spring (2x)									492 71022
5	Main brake left				P					
6	Main brake spring (2x)				P					
9	Damping roller *)									528 70782
10	Main brake right				P					
11	Tension arm spring									492 33317
12	Tension crank									403 70551
13	Slip ring						R			
14	Tension band				P					
15	Tension arm									403 70547
16	Erase head									249 10522
17	Swivelling gear						R			
18	Brake gear (2x)						R			
19	Swivelling plate						R			
20	Reel table (S)						R			
20a	Reel table (T)						R			
21	Headamplifier holder								T	
22	Bracket								T	
23	Roller unit left									528 70771
24	Loading arm left	B								
25	Loading arm right	B								
26	Roller unit right									528 70772
27	Loading gear	B								
30	Reverse clip					Q				
31	Reverse lever					Q				
32	Intermediate lever					Q				
33	Head disc 2/0									691 10583
33	Head disc 2/0-LP									691 10585
33	Head disc 4/0									691 10674
33	Head disc 4/0 Secam									691 21012
33	Head disc 4/2									691 10548
33	Head disc 4/2 Secam									691 10551
34	Scanner motor 2/0 (with screws)									361 10963
34	Scanner motor 4/0 (with screws)									361 10819
34	Scanner motor 4/2 (with screws)									361 10901
35	Cleaning roller									528 70773
36	A/C Head (with clip and screws)									249 10468
37	Pressure roller (with spring)									528 70774
38	Threading motor									361 10809
39	Threading belt									358 20421
40	Motor holder								T	
41	Pressure roller guide							S		
42	Reverse brake				P					
44	Slider gear	B						S		
45	Cam wheel							S		
46	Cam shaft							S		
47	Pulley shaft									528 81462
48	Worm shaft							S		
49	Chassis mounting clip								T	
50	WD-holder								T	

Pos.	Description	KITS								Code number 4822
		B	I	L	P	Q	R	S	T	
101	Cassette loader trigger			L						
102	Clip			L						
103	Cassette loader gear1			L						
104	Cassette loader spring			L						
105	Cassette loader gear2			L						
106	Spindle									535 93277
111	Cam wheel reverse	B								
112	Tension lever								T	
113	Cam wheel tension	B								
114	Clutch lever (with spring)									403 70549
115	Clutch									528 20736
116	Changing gear		I							
117	Double gear		I							
118	Light prism								T	
119	Init flap and holder								T	
120	Cam wheel lever								T	
121	S-VHS lever								T	
122	Prism rihgt								T	
123	Prism left								T	
125	Main slider								T	
126	Driving belt									358 31166
127	Capstan motor (with screws)									361 10805
129	Reverse kicker with transmission gears *)									522 20451
128	Gear pulley		I							
150	Lift									443 64112
KIT	B									310 31955
KIT	I									310 31963
KIT	L									310 32116
KIT	P									310 32191
KIT	Q									310 10658
KIT	R									310 10659
KIT	S									310 10661
KIT	T									310 10662

*) optional

Um eine hohen Reparaturstandard zu gewährleisten sind mit Ausnahme von Kit T immer alle im Kit enthaltenen Teile zu tauschen.

In order to guarantee a high repairstandard all spare parts included in a kit have to be replaced with the exception of kit T.

Per una riparazione garantita ocorre sostituire tutti i pezzi contenuti nei kit, fatta eccetione per il kit T.

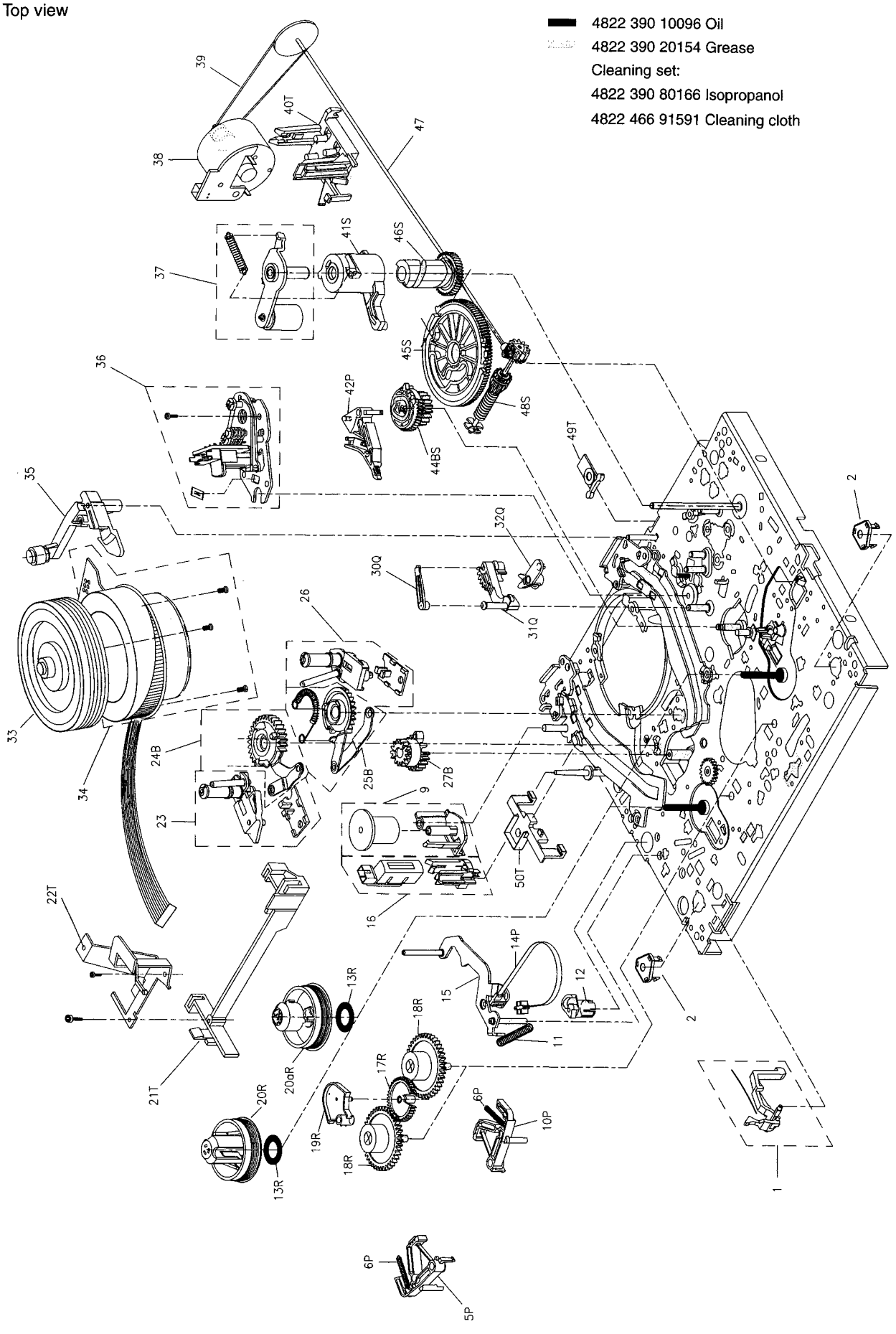
Para obtener un estandár de reparaciones elevado, es necesario cambiar todas las partes contenidas en el kit, la única excepción es para el kit T.

A fin d'obtenir un standard de réparations élevé, toutes les pièces de rechange incluses dans un kit sont à remplacer, exception faite du kit T.

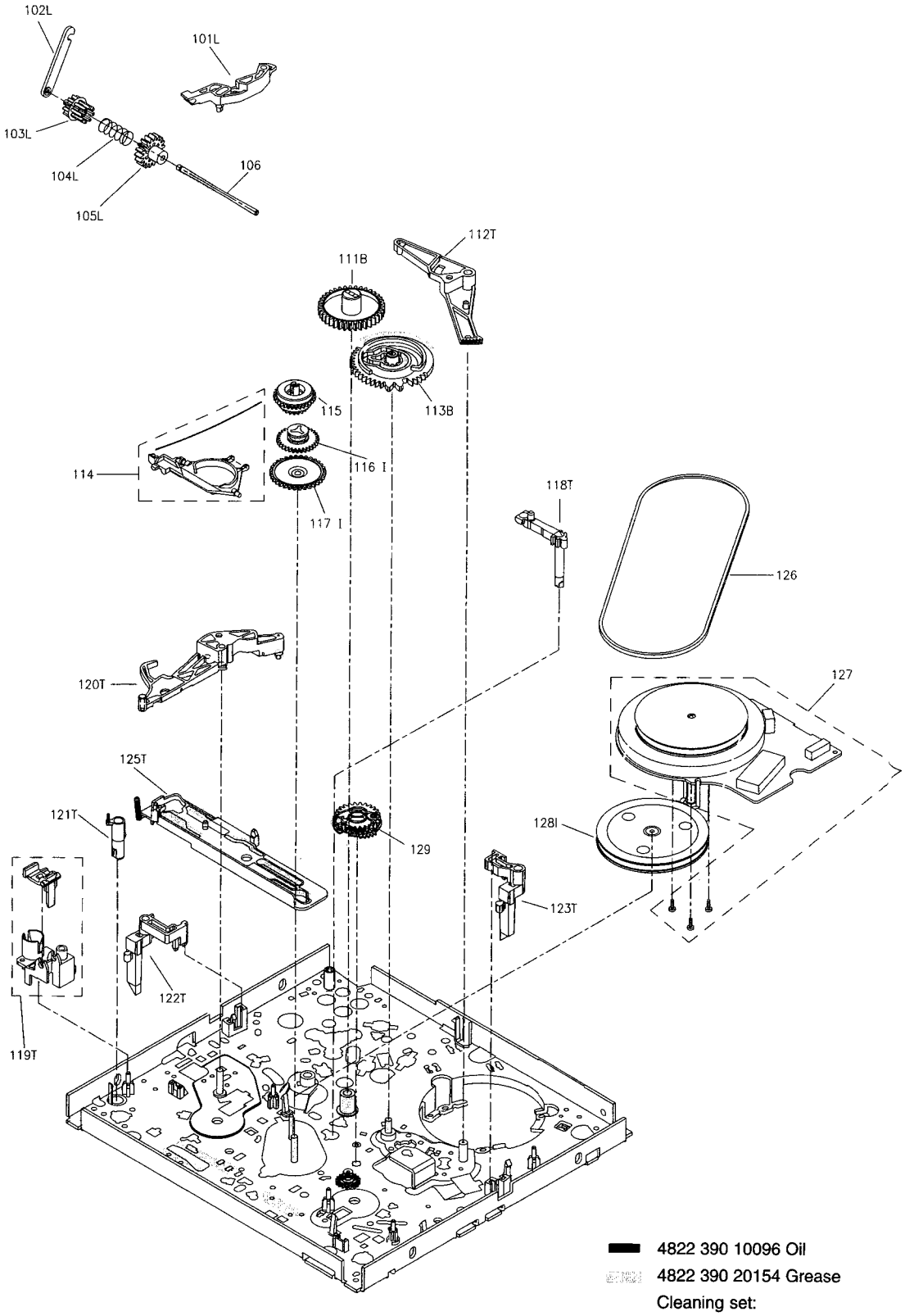
Om een hoge reparatiekwaliteit te waarbogen moeten, met uitzondering van kit T, altijd alle zich in een kit bevindende onderdelen worden vervangen.

4.2 Exploded view

Top view

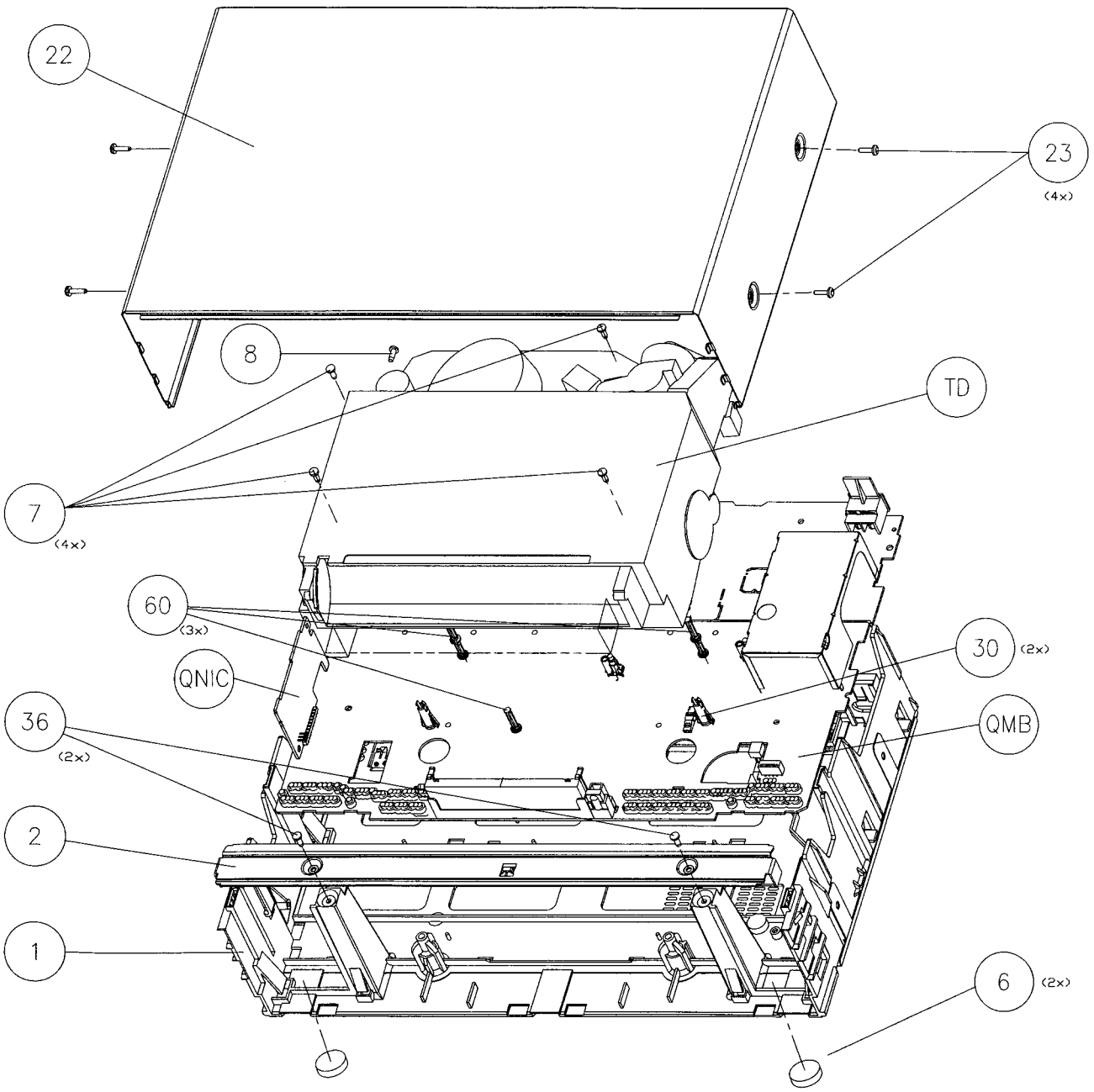


Underside view



4822 390 10096 Oil
4822 390 20154 Grease
Cleaning set:
4822 390 80166 Isopropanol
4822 466 91591 Cleaning cloth

Exploded view set



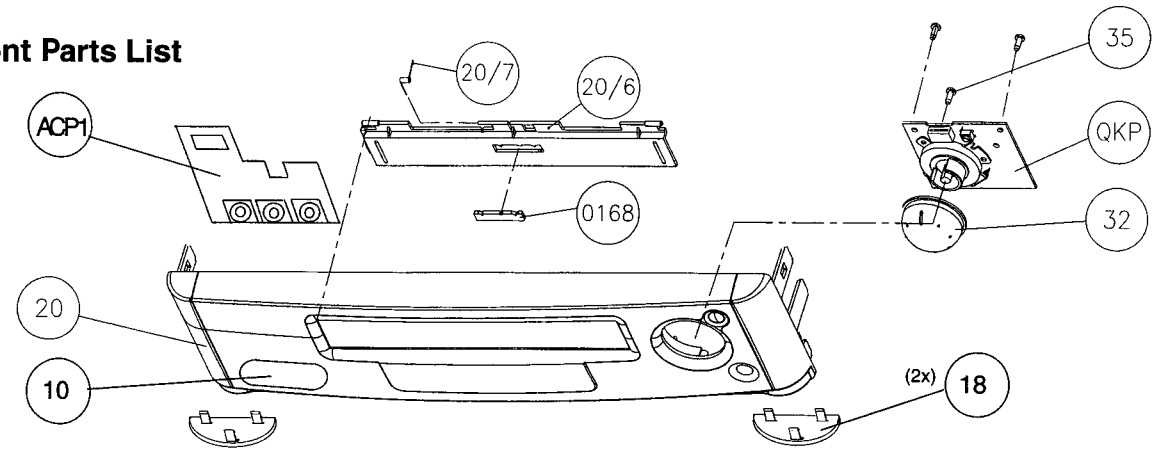
Set Parts List

Pos	Service code	Description
1	4822 464 10287	FRAME ASSY 1SCART SB110, SB115
	4822 464 10286	FRAME ASSY 2SCART VR28X, VR48X, SB215
	4822 464 10285	FRAME ASSY CINCH VR68X, SB615
2	4822 402 10709	BRACKET
6	4822 462 41806	FOOT FRAME
7	4822 502 13884	SCREW 3,5X16
8	4822 502 14431	SCREENING SCREW
22	4822 442 01371	COVER LACQUERED VRXXX
	4822 442 00887	COVER LACQUERED SBXXX
23	4822 502 14109	SCREW 3,5X10
30	4822 256 10198	DISTANCEHOLDER DECK
36	4822 502 11833	SCREW P2,9X12
60	4822 256 10359	DISTANCE HOLDER MOBO

Directions for use

Direction for use	Service code
VR285/02 DE,ES,FR,NL,IT,PT	4822 736 16116
VR285/02 GR	4822 736 16117
VR285/05 EN	4822 736 16115
VR285/07 EN	4822 736 16196
VR285/13 DA,FI,NO,SV	4822 736 16188
VR285/39 FR	4822 736 16153
VR285/58 EN,HU,PL,RU,SK,TS	4822 736 16145
VR286/02 DA,DE,ES,FI,FR,NL,NO,PT,SV	4822 736 16113
VR287/02 DE,FR,NL,IT,PT,ES	4822 736 16111
VR287/07 EN	4822 736 16109
VR287/13 DA,FI,NO,SV	4822 736 16187
VR287/39 FR	4822 736 16159
VR485/02 DA,DE,ES,FI,FR,GR,IT,NL,NO,P,SV	4822 736 16108
VR485/39 FR	4822 736 16107
VR485/58 EN,HU,PL,RU,SK,TS	4822 736 16106
VR487/02 DE,ES,FR, IT,PT	4822 736 16105
VR487/39 F	4822 736 16158
VR487/58 EN,HU,PL,RU,SK,TS	4822 736 16104
VR685/02 DE,FR,GR,IT,NL	4822 736 16156
VR685/07 EN	4822 736 16194
VR685/13 DA,FI,NO,SV	4822 736 16193
VR685/16 ES,FR,NL,PT	4822 736 16192
VR685/39 FR	4822 736 16191
VR685/58 EN,HU,PL,RU,SK,TS	4822 736 16189
VR686/02 DE,FR,NL,IT	4822 736 16103
VR686/13 DA,FI,NO,SV	4822 736 16157
VR686/39 FR	4822 736 16155
SB110/03 NL	4822 736 16121
SB115/03 NL	4822 736 16119
SB215/02 DA,DE,FI,NO,SV	4822 736 16195
SB615/03 NL	4822 736 16118
SB615/11 FR, NL	4822 736 16154

Front Parts List



Pos	Service code	Description
10	4822 442 01385	COVER CINCH FRONT
18	4822 462 11073	FOOT PANEL
20	4822 426 10641	CONTROL PANEL SB110/03
	4822 426 10639	CONTROL PANEL SB115/03
	4822 426 10662	CONTROL PANEL SB215/02
	4822 426 10638	CONTROL PANEL SB615/03
	4822 426 10647	CONTROL PANEL SB615/11
	4822 426 10367	CONTROL PANEL VR285/02, VR285/13
	4822 426 10635	CONTROL PANEL VR285/05, VR285/07
	4822 426 10646	CONTROL PANEL VR285/39
	4822 426 10634	CONTROL PANEL VR285/58
	4822 426 10633	CONTROL PANEL VR286/02
	4822 426 10632	CONTROL PANEL VR287/02, VR287/13
	4822 426 10631	CONTROL PANEL VR287/07
	4822 426 10653	CONTROL PANEL VR287/39
	4822 426 10629	CONTROL PANEL VR485/02
	4822 426 10628	CONTROL PANEL VR485/39
	4822 426 10627	CONTROL PANEL VR485/58
	4822 426 10626	CONTROL PANEL VR487/02, VR487/58
	4822 426 10652	CONTROL PANEL VR487/39
	4822 426 10649	CONTROL PANEL VR685/02
	4822 426 10661	CONTROL PANEL VR685/07
	4822 426 10659	CONTROL PANEL VR685/13, VR685/16, VR685/58
	4822 426 10658	CONTROL PANEL VR685/39
	4822 426 10625	CONTROL PANEL VR686/02
	4822 426 10651	CONTROL PANEL VR686/13
	4823 426 10648	CONTROL PANEL VR686/39
20/6	4822 443 10957	LIFT FLAP SB110/03
	4823 443 10956	LIFT FLAP SB115/03
	4824 443 10987	LIFT FLAP SB215/02
	4825 443 10955	LIFT FLAP SB615/03
	4826 443 10967	LIFT FLAP SB615/11
	4827 443 10954	LIFT FLAP VR285/02, VR285/05, VR285/07, VR285/13
	4828 443 10966	LIFT FLAP VR285/39
	4829 443 10954	LIFT FLAP VR285/58
	4830 443 10952	LIFT FLAP VR286/02
	4831 443 10951	LIFT FLAP VR287/02, VR287/07, VR287/13
	4832 443 10972	LIFT FLAP VR287/39
	4833 443 10949	LIFT FLAP VR485/02
	4834 443 10969	LIFT FLAP VR485/39
	4835 443 10949	LIFT FLAP VR485/58
	4836 443 10948	LIFT FLAP VR487/02
	4837 443 10971	LIFT FLAP VR487/39
	4838 443 10948	LIFT FLAP VR487/58
	4839 443 10968	LIFT FLAP VR685/02, VR685/07, VR685/13, VR685/16, VR685/58
	4840 443 10986	LIFT FLAP VR685/39
	4841 443 10947	LIFT FLAP VR686/02, VR686/13
	4842 443 10985	LIFT FLAP VR686/39
20/7	4822 492 70896	LEG SPRING
32	4822 410 11107	SHUTTLE KNOB VR686
	4822 410 11807	SHUTTLE KNOB VR287, VR487
35	4822 502 11839	SCREW 2,9X8
168	4822 459 11235	WORDMARK PHILIPS VRX86, VRX87
	4822 459 10886	WORDMARK PHILIPS VRX85
	4822 454 13207	WORDMARK PHILIPS SB215

Motherboard PAL, SECAM, MONO, STEREO

CONNECTORS

1001⚠	4822 267 10577	MAINS PLUG
1002	4822 267 10498	CONN. 3p
1710	4822 265 30989	CONN. 3p
1711	4822 267 41062	CONN. 6p
1750	4822 267 10458	CONN. 3p
1908	4822 267 10584	CONN. 1p
1909	4822 267 10583	CONN. 1p
1911	4822 265 10938	CINCH 2p white
1912	4822 265 10939	CINCH 2p red
1915	4822 267 10364	CONN. 9p
1916	4822 267 41199	CONN. 5p
1917	4822 264 10345	SCART CONN. ORANGE
1918	4822 264 10346	SCART CONN. BLUE
1930	4822 267 41062	CONN. 6p
1944	4822 265 30989	CONN. 3p
1945	4822 267 51261	CONN. 8p
1946	4822 267 10366	CONN. 8p
1961	4822 267 31512	CONN. 7p
1962	5322 268 90415	CONN. 2p

MISCELLANEOUS

0005	4822 256 10355	DISPLAY HOLDER
0007	4822 256 10195	HOLDER
0008	4822 256 10196	HOLDER
0020	4822 256 10197	HOLDER
0021	4822 256 10197	HOLDER
0022	4822 256 10197	HOLDER
1000	4822 242 81067	Crystal 4.433 619 MHz
1101	4822 276 13732	SWITCH TACT PUSH
1103	4822 276 13732	SWITCH TACT PUSH
1105	4822 276 13732	SWITCH TACT PUSH
1107	4822 276 13732	SWITCH TACT PUSH
1109	4822 276 13732	SWITCH TACT PUSH
1110	4822 276 13732	SWITCH TACT PUSH
1111	4822 276 13732	SWITCH TACT PUSH
1113	4822 276 13732	SWITCH TACT PUSH
1132	4822 276 13732	SWITCH TACT PUSH
1134	4822 276 13732	SWITCH TACT PUSH
1136	4822 276 13732	SWITCH TACT PUSH
1140	4822 276 13732	SWITCH TACT PUSH
1142	4822 276 13732	SWITCH TACT PUSH
1143	4822 276 13732	SWITCH TACT PUSH
1144	4822 276 13732	SWITCH TACT PUSH
1145	4822 276 13732	SWITCH TACT PUSH
1147	4822 276 13732	SWITCH TACT PUSH
1148	4822 276 13732	SWITCH TACT PUSH
1149	4822 276 13732	SWITCH TACT PUSH
1154	4822 276 13732	SWITCH TACT PUSH
1155	4822 276 13732	SWITCH TACT PUSH
1178	4822 276 13732	SWITCH TACT PUSH
1180	4822 276 13732	SWITCH TACT PUSH
1181	4822 276 13732	SWITCH TACT PUSH
1183	4822 276 13732	SWITCH TACT PUSH
1185	4822 276 13732	SWITCH TACT PUSH
1186	4822 276 13732	SWITCH TACT PUSH
1187	4822 276 13732	SWITCH TACT PUSH
1190	4822 276 13732	SWITCH TACT PUSH
1192	4822 276 13732	SWITCH TACT PUSH
1193	4822 276 13732	SWITCH TACT PUSH
1220	4822 276 13732	SWITCH TACT PUSH
1224	4822 276 13732	SWITCH TACT PUSH
1226	4822 276 13732	SWITCH TACT PUSH
1227	4822 276 13732	SWITCH TACT PUSH
1228	4822 276 13732	SWITCH TACT PUSH
1229	4822 276 13732	SWITCH TACT PUSH
1230	4822 276 13732	SWITCH TACT PUSH
1231	4822 276 13732	SWITCH TACT PUSH
1232	4822 276 13732	SWITCH TACT PUSH
1233	4822 276 13732	SWITCH TACT PUSH
1234	4822 276 13732	SWITCH TACT PUSH
1235	4822 276 13732	SWITCH TACT PUSH
1236	4822 276 13732	SWITCH TACT PUSH
1242	4822 276 13732	SWITCH TACT PUSH
1297	5322 242 73682	Crystal 32,768 KHZ
1298	4822 242 82114	Crystal 8,00 MHZ
1350⚠	4822 071 51001	Fuse 100 mA
1351⚠	4822 071 55001	Fuse 500 mA
1352⚠	4822 071 55001	Fuse 500 mA
1353⚠	4822 070 31252	Fuse 1.25 A
1355⚠	4822 071 51002	Fuse 1.0 A
1356⚠	4822 071 51002	Fuse 1.0 A
1400	4822 242 82059	Crystal 10 MHZ
1460	4822 277 11521	Switch
1461	4822 277 11521	Switch
1701	4822 210 10786	TP916MK2 PAL BG (TMRG1-108A compatible)
1701	4822 210 10787	TMRG1-110A PAL I (IRL) (TP944MK2, TMRB1102A comp.)
1701	4822 210 10784	TMRG1-203A PAL GK
1701	4822 210 10785	TP926MK2 Booster SECAM (TMRG2-104A compatible)
1719	4822 242 10688	OFWK9456M SEC-LL'
1719	4822 242 10306	OFWK9463M SEC-DK
1720	4822 242 81964	G1984 FM stereo PAL-G
1720	4822 242 81737	G1965 mono SEC
1720	4822 242 10307	OFWG3956M SEC-DK
1720	4822 242 81436	OFWK3953M stereo SEC
1721	4822 242 81388	OFWG1961M mono PAL-G
1721	4822 242 81261	OFWG1966M mono SEC-DK
1721	4822 242 10575	OFWJ1980M PAL-I
1722	4822 242 10318	OFWL9360M mono SEC-DK
1740	4822 242 72586	TPS 5,5MB-TF20 PAL-G
1740	4822 242 81572	TPS 6,0MB-TF21 PAL-I
1745	4822 242 70279	SFE 6,0MB SEC-L, PAL-I
1745	4822 242 10428	EFCT5R5YS5A PAL-G
1745	4822 242 10429	EFCT6R5YS5A SEC-DK
1746	4822 242 10428	EFCT5R5YS5A
1746	4822 242 10429	EFCT6R5YS5A SEC-DK
1747	4822 242 10563	EFCT5R74YS5A stereo FM
1748	4822 242 10754	EFCT6R25YS5A stereo DK
1781	4822 242 82059	Crystal 10 MHZ

CAPACITORS

2001	4822 126 10002	100nF20%Y5V	25V
2002	4822 122 33177	10nF 20% X7R	50V
2003	4822 126 10002	100nF20%Y5V	25V
2004	4822 122 33177	10nF 20% X7R	50V
2005	4822 124 23055	22µF20%	16V
2006	4822 126 13222	390pF 2% np0	63V
2007	5322 122 32966	39pF 5%np0	50V
2008	5322 122 32658	22pF 5%	50V
2009	4822 126 10002	100nF20%Y5V	25V
2010	4822 124 80987	220µF20%	63V
2011	4822 122 33177	10nF 20% X7R	50V
2012	4822 124 11569	4,7µF 20%	25V
2013	4822 126 10002	100nF20%Y5V	25V
2014	4822 124 80975	0,47µF20%	50V
2015	4822 126 10002	100nF20%Y5V	25V
2016	4822 126 10002	100nF20%Y5V	25V
2017	4822 124 22826	10µF	16V
2018	5322 122 32658	22pF 5%	50V
2019	4822 124 22826	10µF	16V
2020	4822 124 22826	10µF	16V
2021	4822 124 22826	10µF	16V
2022	4822 126 10002	100nF20%Y5V	25V
2023	4822 122 33177	10nF 20% X7R	50V
2024	4822 126 10002	100nF20%Y5V	25V
2025	4822 124 11568	47µF 20%	16V
2026	4822 122 33575	220pF 5%	50V
2027	4822 122 33177	10nF 20% X7R	50V
2028	4822 122 33177	10nF 20% X7R	50V
2029	4822 122 33177	10nF 20% X7R	50V
2030	4822 122 33177	10nF 20% X7R	50V
2031	4822 126 10002	100nF20%Y5V	25V

⚠ ... Safety component, use only this type

Motherboard PAL, SECAM, MONO, STEREO

2032	4822 124 11568	47µF 20%	16V
2033	4822 126 10002	100nF20%Y5V	25V
2034	4822 122 33177	10nF 20% X7R	50V
2035	4822 122 33177	10nF 20% X7R	50V
2036	4822 122 33515	82pF 5%	63V
2037	4822 126 14124	220pF 2%	
2038	5322 122 32658	22pF 5%	50V
2038	5322 122 32139	12pF 2%	50V for 2 heads
2039	4822 124 23053	1µF20%	63V
2040	5322 122 32654	22nF10%X7R	63V
2041	4822 124 23053	1µF20%	63V
2042	4822 122 33797	47nF20%Y5V	50V
2043	4822 124 41969	1µF20%	50V
2044	4822 124 23053	1µF20%	63V
2045	4822 126 13196	100nF10%X7R	50V
2046	5322 122 34123	1nF10%X7R	50V
2048	5322 122 31873	2,7pF0,5%	100V
2047	4822 122 33177	10nF 20% X7R	50V
2049	4822 124 11568	47µF 20%	16V
2054	4822 124 41969	1µF20%	50V
2055	4822 122 33177	10nF 20% X7R	50V
2059	4822 124 23053	1µF20%	63V
2064	5322 122 31946	27pF 5%	63V
2066	4822 122 33177	10nF 20% X7R	50V
2080	5322 122 32658	22pF 5%	50V
2081	4822 122 33177	10nF 20% X7R	50V
2082	4822 122 33177	10nF 20% X7R	50V
2083	4822 122 33177	10nF 20% X7R	50V
2084	4822 122 33177	10nF 20% X7R	50V
2085	4822 126 10002	100nF20%Y5V	25V
2086	4822 124 11568	47µF 20%	16V
2087	4822 122 33177	10nF 20% X7R	50V
2100	4822 122 33177	10nF 20% X7R	50V
2101	5322 122 32531	100pF 5%	50V
2102	5322 122 32658	22pF 5%	50V
2103	5322 122 34123	1nF10%X7R	50V
2104	4822 122 33177	10nF 20% X7R	50V
2105	4822 122 33177	10nF 20% X7R	50V
2106	4822 122 33177	10nF 20% X7R	50V
2107	4822 122 33177	10nF 20% X7R	50V
2108	5322 122 33538	150pF 2%	63V
2109	5322 122 32481	15pF 5%	50V
2110	4822 126 10002	100nF20%Y5V	25V
2111	4822 126 13694	68pF 1%	63V
2112	4822 122 33177	10nF 20% X7R	50V
2113	4822 126 10002	100nF20%Y5V	25V
2115	4822 122 33575	220pF 5%	50V
2116	4822 122 33177	10nF 20% X7R	50V
2117	5322 122 34123	1nF10%X7R	50V
2118	5322 122 32659	33pF 5%	50V
2119	5322 122 32531	100pF 5%	50V for mstd /39
2119	4822 122 33797	47nF 20%	50V
2121	5322 122 34123	1nF10%X7R	50V
2122	4822 122 33177	10nF 20% X7R	50V
2123	4822 126 10002	100nF20%Y5V	25V
2124	4822 126 10002	100nF20%Y5V	25V
2125	4822 122 33515	82pF 5%	63V
2126	5322 122 31946	27pF 5%	63V
2128	4822 122 33515	82pF 5%	63V
2129	4822 122 33515	82pF 5%	63V
2130	4822 122 33575	220pF 5%	50V
2132	5322 122 32269	6,8pF 5%	50V
2133	5322 122 32452	47pF 5%	63V
2134	4822 122 33575	220pF 5%	50V
2135	5322 122 31946	27pF 5%	63V
2137	4822 116 10056	VDR 0805 1MA/ 8VMAX	
2138	4822 116 10056	VDR 0805 1MA/ 8VMAX	
2150	4822 122 33177	10nF 20% X7R	50V
2151	4822 126 13061	220nF20% Y5V	25V
2152	4822 124 11568	47µF 20%	16V
2153	5322 122 32654	22nF 10% X7R	63V
2154	4822 122 33177	10nF 20% X7R	50V
2155	4822 122 33177	10nF 20% X7R	50V
2156	4822 122 33177	10nF 20% X7R	50V
2157	4822 122 33177	10nF 20% X7R	50V
2158	4822 122 33177	10nF 20% X7R	50V
2159	4822 122 33177	10nF 20% X7R	50V
2160	4822 122 33177	10nF 20% X7R	50V
2161	4822 122 33177	10nF 20% X7R	50V
2162	5322 122 32268	470pF 10%	50V
2163	5322 122 32531	100pF 5%	50V
2203	5322 122 32481	15pF 5%	50V
2204	5322 122 32481	15pF 5%	50V
2210	4822 122 33177	10nF 20% X7R	50V
2211	4822 124 81112	220µF20%	10V
2212	4822 126 13061	220nF20% Y5V	25V
2220	4822 124 23055	22µF20%	16V
2230	4822 122 33177	10nF 20% X7R	50V
2231	4822 122 33797	47nF20%Y5V	50V
2232	4822 122 33177	10nF 20% X7R	50V
2233	4822 122 33177	10nF 20% X7R	50V
2251	4822 126 10002	100nF20%Y5V	25V
2252	4822 126 10002	100nF20%Y5V	25V
2297	4822 124 11968	220mF +80-20%	5,5V
2300	4822 124 80407	1µF20%	50V
2301	4822 124 80407	1µF20%	50V
2302	4822 124 80407	1µF20%	50V
2308	5322 122 32531	100pF 5%	50V
2310	4822 126 10002	100nF20%Y5V	25V
2311	4822 122 33177	10nF 20% X7R	50V
2313	4822 122 33575	220pF 5%	50V
2314	4822 126 10002	100nF20%Y5V	25V
2315	4822 122 33177	10nF 20% X7R	50V
2316	4822 122 33797	47nF20%Y5V	50V
2317	5322 122 32654	22nF10%X7R	63V
2318	4822 124 22263	220µF20%	25V
2319	5322 122 32654	22nF10%X7R	63V
2320	5322 122 32654	22nF10%X7R	63V
2350	4822 126 14125	470pF 2%	
2353	4822 126 13196	100nF10% X7R	25V
2354	4822 126 10002	100nF20%Y5V	25V
2355	5322 122 34123	1nF10%X7R	50V
2356	4822 124 23053	1µF20%	63V
2357⚠	4822 126 13841	1nF 20%	250V
2358	4822 126 10002	100nF20%Y5V	25V
2359	4822 126 13061	220nF20% Y5V	25V
2360⚠	4822 121 10667	68nF 20%	275V
2361	4822 124 22864	47µF	50V
2362⚠	4822 124 11969	22µF 20%	400V
2363	4822 124 22864	47µF	50V
2364	4822 124 11899	220µF 20%	25V
2365	4822 124 11971	470µF 20%	16V
2366	4822 126 14126	47pF 5%	2KV
2367	4822 124 11899	220µF 20%	25V
2368	4822 122 31175	1nF 10%	500V
2369	4822 126 10002	100nF20%Y5V	25V
2370	4822 124 23052	100µF20%	16V
2371	4822 124 11971	470µF 20%	16V
2372	4822 126 13061	220nF20% Y5V	25V
2373	4822 124 11486	220µF 20%	16V
2374	4822 124 11971	470µF 20%	16V
2375	4822 121 42004	10nF 10%	400V
2376	4822 124 22833	10µF	50V
2378	4822 121 42004	10nF 10%	400V
2379	5322 126 10223	4,7nF10%X7R	63V
2385	4822 124 11486	220µF 20%	16V
2386	5322 122 32268	470pF 10%	50V
2400	4822 122 33177	10nF 20% X7R	50V
2401	4822 124 23055	22µF20%	16V
2403	5322 122 32658	22pF 5%	50V
2404	5322 122 32658	22pF 5%	50V
2416	4822 126 10002	100nF20%Y5V	25V
2417	4822 124 81295	47µF20%	6,3V
2440	4822 124 81029	100µF20%	25V
2441	4822 126 10002	100nF20%Y5V	25V
2442	4822 122 33177	10nF 20% X7R	50V
2455	4822 122 33175	2,2nF 20% X7R	50V
2459	4822 124 22263	220µF20%	25V
2461	5322 126 10223	4,7nF10%X7R	63V
2463	4822 124 23027	47µF	6.3V

⚠ ... Safety component, use only this type

Motherboard PAL, SECAM, MONO, STEREO

2464	5322 126 10223	4,7nF10%X7R	63V	
2465	4822 122 33175	2,2nF 20% X7R	50V	
2466	4822 124 23027	47µF	6.3V	
2467	4822 122 33342	33nF10%X7R	63V	
2468	4822 126 10002	100nF20%Y5V	25V	
2470	4822 122 33177	10nF 20% X7R	50V	
2471	4822 122 33177	10nF 20% X7R	50V	
2472	5322 122 32531	100pF 5%	50V	
2473	5322 122 32531	100pF 5%	50V	
2474	5322 122 32531	100pF 5%	50V	
2501	4822 126 10002	100nF20%Y5V	25V	
2502	4822 124 22826	10µF	16V	
2503	4822 124 22826	10µF	16V	
2504	4822 116 10056	VDR 0805 1MA/ 8VMAX		for stereo
2504	5322 122 32268	470pF 10%	50V	for mono
2505	5322 122 32268	470pF 10%	50V	for mono
2505	4822 116 10056	VDR 0805 1MA/ 8VMAX		for stereo
2506	4822 116 10056	VDR 0805 1MA/ 8VMAX		for stereo
2506	5322 122 32268	470pF 10%	50V	for mono
2507	4822 116 10056	VDR 0805 1MA/ 8VMAX		
2508	4822 126 10002	100nF20%Y5V	25V	
2509	5322 122 32268	470pF 10%	50V	for mono
2509	4822 116 10056	VDR 0805 1MA/ 8VMAX		for stereo
2510	5322 122 32268	470pF 10%	50V	for mono
2510	4822 116 10056	VDR 0805 1MA/ 8VMAX		for stereo
2511	4822 116 10056	VDR 0805 1MA/ 8VMAX		for stereo
2511	5322 122 32268	470pF 10%	50V	for mono
2512	4822 116 10056	VDR 0805 1MA/ 8VMAX		
2514	4822 124 23027	47µF	6.3V	
2515	4822 126 10002	100nF20%Y5V	25V	
2516	4822 124 11568	47µF 20%	16V	
2517	4822 126 10002	100nF20%Y5V	25V	
2519	4822 126 10002	100nF20%Y5V	25V	
2520	4822 126 10002	100nF20%Y5V	25V	
2521	4822 126 10002	100nF20%Y5V	25V	
2523	4822 126 10002	100nF20%Y5V	25V	
2524	4822 126 10002	100nF20%Y5V	25V	
2525	4822 126 10002	100nF20%Y5V	25V	
2526	4822 126 10002	100nF20%Y5V	25V	
2527	4822 126 10002	100nF20%Y5V	25V	
2530	4822 126 13061	220nF20% Y5V	25V	
2540	4822 126 10002	100nF20%Y5V	25V	
2541	4822 122 33175	2,2nF 20% X7R	50V	
2542	4822 122 33342	33nF10%X7R	63V	
2543	4822 126 13482	470nF80/20%	16V	
2545	4822 126 10002	100nF20%Y5V	25V	
2600	5322 126 10184	680p 5%	50V	
2601	4822 122 33175	2,2nF 20% X7R	50V	
2602	4822 124 22826	10µF	16V	
2603	4822 122 33177	10nF 20% X7R	50V	
2604	4822 124 22739	100µF	50V	for mono
2604	4822 124 22826	10µF	16V	for stereo
2605	5322 122 34123	1nF10%X7R	50V	
2606	4822 126 10002	100nF20%Y5V	25V	
2608	4822 122 33177	10nF 20% X7R	50V	
2617	4822 124 11568	47µF 20%	16V	
2618	5322 122 31863	330pF 5%	50V	
2619	4822 124 11568	47µF 20%	16V	
2620	4822 121 51655	47nF	50V	
2621	5322 122 34123	1nF10%X7R	50V	
2622	4822 121 43873	27nF 5%	50V	
2646	4822 126 13482	470nF80/20%	16V	
2647	4822 126 10002	100nF20%Y5V	25V	
2648	4822 124 23055	22µF20%	16V	
2650	4822 126 10002	100nF20%Y5V	25V	
2651	4822 124 11568	47µF 20%	16V	
2652	4822 124 22826	10µF	16V	
2656	4822 126 14127	39nF 10%	50V	
2657	4822 122 33128	15nF10%X7R	63V	
2700	4822 126 10002	100nF20%Y5V	25V	
2701	4822 126 10002	100nF20%Y5V	25V	
2702	4822 126 10002	100nF20%Y5V	25V	
2704	4822 124 23052	100µF20%	16V	
2705	5322 122 32268	470pF 10%	50V	
2706	4822 122 33575	220pF 5%	50V	
2707	5322 122 33861	120pF10%	50V	
2708	4822 124 23055	22µF20%	16V	
2709	4822 126 10002	100nF20%Y5V	25V	
2715	5322 122 32661	56pF 5%	50V	
2716	5322 122 32661	56pF 5%	50V	
2722	5322 122 34123	1nF10%X7R	50V	
2723	4822 122 33177	10nF 20% X7R	50V	
2726	4822 126 12104	12nF 5%X7R	63V	
2727	4822 124 23055	22µF20%	16V	
2728	4822 124 23055	22µF20%	16V	
2729	4822 122 33177	10nF 20% X7R	50V	
2730	5322 122 32452	47pF 5%	63V	
2731	5322 122 32452	47pF 5%	63V	
2732	5322 122 32452	47pF 5%	63V	
2733	4822 122 33177	10nF 20% X7R	50V	
2734	4822 126 10002	100nF20%Y5V	25V	
2735	5322 122 32452	47pF 5%	63V	
2740	4822 124 41576	2,2µF 20%	50V	
2741	4822 126 10002	100nF20%Y5V	25V	
2742	4822 124 23055	22µF20%	16V	
2743	4822 126 13061	220nF20% Y5V	25V	
2744	4822 124 40786	2,2µF20%	63V	
2745	4822 122 33575	220pF 5%	50V	
2746	4822 126 10002	100nF20%Y5V	25V	
2747	4822 126 10002	100nF20%Y5V	25V	
2748	4822 126 12945	8,2pF 2%		
2749	4822 126 13061	220nF20% Y5V	25V	
2750	4822 124 40786	2,2µF20%	63V	
2752	4822 126 13061	220nF20% Y5V	25V	
2780	4822 124 22826	10µF	16V	
2781	4822 122 33177	10nF 20% X7R	50V	
2782	4822 126 10002	100nF20%Y5V	25V	
2783	5322 126 10184	680p 5%	50V	
2784	4822 124 11568	47µF 20%	16V	
2785	5322 122 32531	100pF 5%	50V	
2786	4822 124 11569	4,7µF 20%	25V	
2787	4822 124 11569	4,7µF 20%	25V	
2788	5322 122 32654	22nF10% X7R	63V	
2789	4822 122 33177	10nF 20% X7R	50V	
2790	4822 122 33177	10nF 20% X7R	50V	
2791	4822 124 11569	4,7µF 20%	25V	
2792	4822 124 11569	4,7µF 20%	25V	
2793	5322 122 32481	15pF 5%	50V	
2794	4822 126 10002	100nF20%Y5V	25V	
2795	5322 122 34123	1nF10%X7R	50V	
2796	4822 124 11569	4,7µF 20%	25V	
2800	4822 126 13689	18pF 1%	63V	
2801	5322 122 32659	33pF 5%	50V	
2802	4822 126 14118	100nF -20+80%	50V	
2802	4822 126 10002	100nF20%Y5V	25V	
2803	4822 126 10002	100nF20%Y5V	25V	
2804	4822 124 23053	1µF20%	63V	
2805	4822 124 23027	47µF	6.3V	
2810	5322 122 33861	120pF10%	50V	
2811	5322 122 32531	100pF 5%	50V	
2829	4822 122 33177	10nF 20% X7R	50V	
2831	5322 122 32481	15pF 5%	50V	
2850	4822 124 23052	100µF20%	16V	
2851	5322 122 32654	22nF10% X7R	63V	
2852	4822 124 23052	100µF20%	16V	
2853	5322 122 32654	22nF10% X7R	63V	
2854	4822 124 40786	2,2µF20%	63V	
2855	5322 122 32654	22nF10% X7R	63V	
2856	5322 122 32654	22nF10% X7R	63V	
2857	4822 126 13061	220nF20% Y5V	25V	
2858	4822 126 13061	220nF20% Y5V	25V	
2859	4822 126 13061	220nF20% Y5V	25V	
2860	4822 126 13061	220nF20% Y5V	25V	
2861	4822 126 13061	220nF20% Y5V	25V	
2862	4822 126 13061	220nF20% Y5V	25V	
2863	4822 126 13061	220nF20% Y5V	25V	
2864	4822 126 13061	220nF20% Y5V	25V	
2865	5322 126 10223	4,7nF10%X7R	63V	
2866	4822 124 11568	47µF 20%	16V	
2867	4822 124 22826	10µF	16V	

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2868	4822 126 13061	220nF20% Y5V	25V
2869	5322 126 10223	4,7nF10%X7R	63V
2870	4822 124 11568	47µF 20%	16V
2871	4822 124 22826	10µF	16V
2872	4822 124 22826	10µF	16V
2873	4822 124 22826	10µF	16V
2874	4822 124 22826	10µF	16V
2875	4822 124 22826	10µF	16V
2876	4822 124 22826	10µF	16V
2877	4822 124 22826	10µF	16V
2880	4822 124 22826	10µF	16V
2881	4822 124 22826	10µF	16V
2882	5322 126 10223	4,7nF10%X7R	63V
2883	5322 116 80853	560pF 5%	63V
2884	5322 126 10223	4,7nF10%X7R	63V
2885	5322 116 80853	560pF 5%	63V
2888	4822 124 22826	10µF	16V
2889	4822 126 10002	100nF20%Y5V	25V

RESISTORS

3000	4822 051 10102	1K00	2%	0,25W	
3001	4822 051 10102	1K00	2%	0,25W	
3002	4822 116 52228	680E	5%	0,5W	
3003	4822 116 52228	680E	5%	0,5W	
3004	4822 116 52228	680E	5%	0,5W	
3005	4822 116 52303	8K2	5%	0,5W	
3006	4822 116 52238	12K	5%	0,5W	
3007	4822 100 12157	10K	30%	POT	
3008	4822 116 83883	470E	5%	0,5W	
3010	4822 051 10102	1K00	2%	0,25W	
3011	4822 117 11449	2K2	1%	0,1W	
3012	4822 117 11449	2K2	1%	0,1W	
3013	4822 117 11721	1K3	2%	0.1W	
3014	4822 116 83903	4K7	2%	0.1W	
3015	4822 051 10102	1K00	2%	0,25W	
3016	4822 051 20822	8K20	5%	0,1W	
3017	4822 116 52249	1K8	5%	0,5W	
3018	4822 116 83883	470E	5%	0,5W	
3019	4822 051 20562	5K60	5%	0,1W	
3020	4822 051 20224	220K0	5%	0,1W	
3021	4822 050 11002	1K00	1%	0,4W	
3022	4822 050 11002	1K00	1%	0,4W	
3024	4822 051 20822	8K20	1%	0,1W	
3024	4822 051 20682	6K80	5%	0,1W	for 2/x
3027	4822 116 52264	27K	5%	0,5W	
3028	4822 051 20562	5K60	5%	0,1W	for 1 scart
3028	4822 051 20332	3K30	5%	0,1W	for 2 scart
3029	4822 051 20225	2M20	5%	0,1W	
3030	4822 116 52256	2K2	5%	0,5W	
3031	4822 116 52256	2K2	5%	0,5W	
3032	4822 117 11449	2K2	1%	0,1W	
3033	4822 117 10965	18K	5%	0,5W	
3034	4822 051 20153	15K00	5%	0,1W	
3035	4822 117 11449	2K2	1%	0,1W	
3036	4822 051 20471	470R0	5%	0,1W	
3045	4822 116 83876	270E	5%	0,5W	
3046	4822 050 11002	1K00	1%	0,4W	
3048	4822 116 83884	47K	5%	0,5W	
3050	4822 116 83872	220R	5%	0,5W	for mstd
3050	4822 116 52175	100E	5%	0,5W	
3051	4822 051 20224	220K0	5%	0,1W	
3052	4822 116 52175	100E	5%	0,5W	
3054	4822 117 11449	2K2	1%	0,1W	
3055	4822 117 10361	680R	1%	0,1W	
3080	4822 051 20568	5R60	5%	0,1W	
3081	4822 051 20561	560R0	5%	0,1W	
3082	4822 051 20471	470R0	5%	0,1W	
3083	4822 051 20472	4K70	5%	0,1W	
3084	4822 051 20472	4K70	5%	0,1W	
3085	4822 051 20112	1K10	5%	0,1W	
3086	4822 051 20331	330R0	5%	0,1W	
3087	4822 116 52234	100K	5%	0,5W	
3089	4822 051 20561	560R0	5%	0,1W	
3100	4822 116 52219	330E	5%	0,5W	
3101	4822 051 20332	3K30	5%	0,1W	
3102	4822 116 52231	820E	5%	0,5W	
3103	4822 116 52228	680E	5%	0,5W	
3104	4822 050 11002	1K00	1%	0,4W	
3105	4822 116 52222	390E	5%	0,5W	
3106	4822 116 52226	560E	5%	0,5W	
3107	4822 050 11002	1K00	1%	0,4W	
3109	4822 116 52195	47E	5%	0,5W	
3110	4822 116 52207	1K2	5%	0,5W	
3111	4822 116 52256	2K2	5%	0,5W	
3112	4822 051 10102	1K00	2%	0,25W	
3113	4822 051 20561	560R0	5%	0,1W	
3114	4822 117 10833	10K	1%	0,1W	
3115	4822 116 52251	18K	5%	0,5W	
3116	4822 051 10102	1K00	2%	0,25W	
3117	4822 116 52256	2K2	5%	0,5W	
3118	4822 116 52283	4K7	5%	0,5W	
3119	4822 116 52271	33K	5%	0,5W	
3120	4822 116 52303	8K20	5%	0,5W	
3121	4822 051 20182	1K80	5%	0,1W	
3122	4822 051 10102	1K00	2%	0,25W	
3123	4822 116 83864	10K	5%	0,5W	
3124	4822 116 52243	1K5	5%	0,5W	
3125	4822 117 11449	2K2	1%	0,1W	
3126	4822 051 10102	1K00	2%	0,25W	
3127	4822 117 11449	2K2	1%	0,1W	
3128	4822 117 11449	2K2	1%	0,1W	
3129	4822 051 10102	1K00	2%	0,25W	
3134	4822 117 11503	220R	1%	0.1W	
3135	4822 117 11503	220R	1%	0.1W	
3151	4822 051 20104	100K00	5%	0,1W	
3152	4822 051 20393	39K00	5%	0,1W	
3153	4822 117 10833	10K	1%	0,1W	
3154	4822 117 12605	27K	1%	0,1W	for 4/2
3154	4822 117 10354	22K	1%	0,1W	for 4/0
3154	4822 117 12141	14K	1%	0,1W	for 3/0
3154	4822 117 12342	18K	1%	0,1W	for 2/x
3155	4822 117 11383	12K	1%	0,1W	for 2/x
3155	4822 051 20153	15K00	5%	0,1W	for 4/x
3156	4822 051 20331	330R00	5%	0,1W	
3157	4822 051 20331	330R00	5%	0,1W	
3158	4822 051 20472	4K70	5%	0,1W	
3159	4822 100 12157	10K	30%	POT	
3160	4822 100 12157	10K	30%	POT	
3162	4822 051 20008	0R00 JUMP (0805)			
3163	4822 051 20008	0R00 JUMP (0805)			
3164	4822 051 20008	0R00 JUMP (0805)			
3165	4822 051 20008	0R00 JUMP (0805)			
3228	4822 116 83872	220E	5%	0,5W	
3229	4822 117 10833	10K	1%	0,1W	
3230	4822 117 10833	10K	1%	0,1W	
3231	4822 116 52175	100E	5%	0,5W	
3232	4822 051 20101	100E	5%	0,5W	
3233	4822 116 83864	10K	5%	0,5W	
3234	4822 116 83864	10K	5%	0,5W	
3235	4822 116 83864	10K	5%	0,5W	
3238	4822 116 83864	10K	5%	0,5W	
3240	4822 116 52297	68K	5%	0,5W	
3241	4822 051 20683	68K00	5%	0,1W	
3242	4822 051 20683	68K00	5%	0,1W	
3243	4822 051 20683	68K00	5%	0,1W	
3244	4822 050 11002	1K00	1%	0,4W	
3245	4822 051 20183	18K00	5%	0,1W	
3250	4822 051 20153	15K00	5%	0,1W	
3252▲	4822 117 11593	22E	5%		
3253	4822 050 24708	4R70	1%	0,6W	
3254	4822 050 24708	4R70	1%	0,6W	
3265	4822 116 83864	10K	5%	0,5W	
3270	4822 117 11503	220R	1%	0.1W	
3271	4822 117 11503	220R	1%	0.1W	
3273	4822 117 11503	220R	1%	0.1W	
3297	4822 051 20562	5K60	5%	0,1W	
3300	4822 116 52175	100E	5%	0,5W	
3301	4822 116 52175	100E	5%	0,5W	

▲... Safety component, use only this type

Motherboard PAL, SECAM, MONO, STEREO

3302	4822 116 52175	100E	5%	0,5W	
3303	4822 116 83883	470E	5%	0,5W	
3304	4822 050 11002	1K00	1%	0,4W	
3305	4822 116 52283	4K7	5%	0,5W	
3312	4822 116 52249	1K8	5%	0,5W	
3313	4822 116 83884	47K	5%	0,5W	
3350	4822 117 10833	10K	1%	0,1W	
3351	4822 051 20223	22K00	5%	0,1W	
3352	4822 051 20562	5K60	5%	0,1W	
3353	4822 117 10833	10K	1%	0,1W	
3354	4822 117 11449	2K2	1%	0,1W	
3355	4822 051 20822	8K20	5%	0,1W	
3356	4822 051 20223	22K00	5%	0,1W	
3357	4822 051 20472	4K70	5%	0,1W	
3358	4822 117 11149	82K	1%	0,1W	
3359	4822 051 20471	470R00	5%	0,1W	
3360	4822 051 20689	68R00	5%	0,1W	
3361⚠	4822 052 10479	47R00	5%	0,33W	
3362	4822 051 20472	4K70	5%	0,1W	
3363	4822 050 21208	1R20	1%	0,6W	
3365	4822 116 83874	220K	5%	0,5W	
3369	4822 116 83882	39K	5%	0,5W	
3370	4822 116 83882	39K	5%	0,5W	
3374	4822 051 20271	270R00	5%	0,1W	
3375	4822 051 10102	1K00	2%	0,25W	
3376	4822 051 20008	0R00 JUMP (0805)			
3377	4822 051 20472	4K70	5%	0,1W	
3378	4822 051 20272	2K70	5%	0,1W	
3379	4822 101 11383	470E	30%	POT	
3380	4822 051 10102	1K00	2%	0,25W	
3381	4822 051 20104	100K00	5%	0,1W	
3382	4822 117 10833	10K	1%	0,1W	
3383	4822 116 83874	220K	5%	0,5W	
3384⚠	4822 052 10101	100R00	5%	0,33W	
3385	4822 116 52269	3K30	1%	0,4W	
3386	4822 116 52219	330R00	1%	0,4W	
3387	4822 116 52226	560R00	5%	0,5W	
3387	4822 116 83883	470R00	5%	0,5W	for stereo
3388	4822 116 52226	560R00	5%	0,5W	
3388	4822 116 83883	470R00	5%	0,5W	for stereo
3389	4822 117 11449	2K2	1%	0,1W	
3390	4822 051 20224	220K00	5%	0,1W	
3391	4822 051 20224	220K00	5%	0,1W	
3392⚠	4822 053 21335	3M30	5%	0,5W	
3393⚠	4822 053 21335	3M30	5%	0,5W	
3394	4822 116 52256	2K2	5%	0,5W	
3395	4822 116 52257	22K	5%	0,5W	
3396	4822 116 52257	22K	5%	0,5W	
3397	4822 051 20101	100E	5%	0,5W	
3398	4822 051 20101	100E	5%	0,5W	
3400	4822 116 83864	10K	5%	0,5W	
3401	4822 116 83864	10K	5%	0,5W	
3402	4822 050 11002	1K00	1%	0,4W	
3403	4822 116 52256	2K2	5%	0,5W	
3404	4822 116 83864	10K	5%	0,5W	
3405	4822 116 83876	270E	5%	0,5W	
3406	4822 116 83864	10K	5%	0,5W	
3407	4822 116 83864	10K	5%	0,5W	
3408	4822 116 52256	2K2	5%	0,5W	
3410	4822 051 20472	4K70	5%	0,1W	
3411	4822 116 83864	10K	5%	0,5W	
3412	4822 116 52249	1K8	5%	0,5W	
3413	4822 050 11002	1K00	1%	0,4W	
3414⚠	4822 052 10109	10R00	5%	0,33W	
3415⚠	4822 052 10109	10R00	5%	0,33W	
3416	4822 116 52257	22K	5%	0,5W	
3417	4822 116 52283	4K7	5%	0,5W	
3418	4822 050 11002	1K00	1%	0,4W	
3419	4822 051 20472	4K70	5%	0,1W	
3420	4822 117 10833	10K	1%	0,1W	
3421	4822 116 83864	10K	5%	0,5W	
3423	4822 116 83876	270R	5%	0,5W	
3424	4822 116 52256	2K2	5%	0,5W	
3430	4822 116 52249	1K8	5%	0,5W	
3431	4822 116 52276	3K9	5%	0,5W	
3432	4822 116 83864	10K	5%	0,5W	
3433	4822 116 52256	2K2	5%	0,5W	
3434	4822 116 52257	22K	5%	0,5W	
3435	4822 116 83864	10K	5%	0,5W	
3436	4822 050 11002	1K00	1%	0,4W	
3437	4822 116 83961	6K8	5%	0,5W	
3438	4822 051 20472	4K70	5%	0,1W	
3440⚠	4822 052 10228	2R20	5%	0,33W	
3441	4822 116 80176	1E	5%	0,5W	
3442	4822 116 52304	82K	5%	0,5W	
3443	4822 116 52257	22K	5%	0,5W	
3444	4822 116 52276	3K9	5%	0,5W	
3445	4822 116 83864	10K	5%	0,5W	
3446	4822 116 52257	22K	5%	0,5W	
3447	4822 116 52257	22K	5%	0,5W	
3448	4822 116 83864	10K	5%	0,5W	
3449	4822 117 10833	10K	1%	0,1W	
3450	4822 116 52256	2K2	5%	0,5W	
3451	4822 116 83864	10K	5%	0,5W	
3452	4822 116 52249	1K8	5%	0,5W	
3453	4822 116 52283	4K7	5%	0,5W	
3454	4822 116 52283	4K7	5%	0,5W	
3455	4822 116 52283	4K7	5%	0,5W	
3456	4822 117 10833	10K	1%	0,1W	
3457	4822 050 11002	1K00	1%	0,4W	
3458	4822 051 20223	22K00	5%	0,1W	
3459	4822 116 83876	270E	5%	0,5W	
3460	4822 116 83884	47K	5%	0,5W	
3461	4822 051 20472	4K70	5%	0,1W	
3462	4822 051 20563	56K00	5%	0,1W	
3463	4822 116 52283	4K7	5%	0,5W	
3464	4822 116 52256	2K2	5%	0,5W	
3466	4822 116 83864	10K	5%	0,5W	
3469	4822 116 83876	270E	5%	0,5W	
3470	4822 116 52264	27K	5%	0,5W	
3471	4822 116 52222	390E	5%	0,5W	
3472	4822 116 52264	27K	5%	0,5W	
3473	4822 116 52222	390E	5%	0,5W	
3474	4822 116 83864	10K	5%	0,5W	
3475	4822 116 52289	5K6	5%	0,5W	
3476	4822 116 52222	390E	5%	0,5W	
3477	4822 116 52283	4K7	5%	0,5W	
3478	4822 051 20104	100K00	5%	0,1W	
3479	4822 116 52283	4K7	5%	0,5W	
3480	4822 116 83884	47K	5%	0,5W	
3481	4822 116 52256	2K2	5%	0,5W	
3482	4822 116 52257	22K	5%	0,5W	
3483	4822 116 83864	10K	5%	0,5W	
3484	4822 116 52283	4K7	5%	0,5W	
3488	4822 051 20471	470R00	5%	0,1W	
3489	4822 116 52283	4K7	5%	0,5W	
3490	4822 116 83872	220R	5%	0,5W	
3491	4822 116 83884	47K	5%	0,5W	
3492	4822 051 20473	47K00	5%	0,1W	
3493	4822 051 20225	2M20	5%	0,1W	
3494	4822 051 20104	100K00	5%	0,1W	
3495	4822 051 20104	100K00	5%	0,1W	
3496	4822 051 20472	4K70	5%	0,1W	
3497	4822 051 20472	4K70	5%	0,1W	
3498	4822 051 20472	4K70	5%	0,1W	
3499	4822 116 52283	4K7	5%	0,5W	
3501	4822 051 10102	1K00	2%	0,25W	
3502	4822 051 10102	1K00	2%	0,25W	
3503	4822 051 10102	1K00	2%	0,25W	
3505	4822 051 20759	75R00	5%	0,1W	
3509	4822 051 20008	0R00 JUMP (0805)			
3510	4822 051 20008	0R00 JUMP (0805)			
3512	4822 051 20682	6K80	5%	0,1W	
3513	4822 116 83872	220E	5%	0,5W	
3514	4822 116 83961	6K80	5%		
3515	4822 051 20682	6K80	5%	0,1W	
3516	4822 117 11503	220R	1%	0.1W	
3517	4822 116 52234	100K	5%	0,5W	
3518	4822 116 52234	100K	5%	0,5W	
3519	4822 051 20822	8K20	5%	0,1W	

⚠ ... Safety component, use only this type

Motherboard PAL, SECAM, MONO, STEREO

3520	4822 117 10353	150R	1%	0,1W	
3521	4822 116 83961	6K8	5%		
3522	4822 051 20821	820R00	5%	0,1W	
3523	4822 051 20008	0R00 JUMP (0805)			
3524	4822 051 20759	75R00	5%	0,1W	
3525	4822 051 20822	8K20	5%	0,1W	
3526	4822 117 11449	2K20	1%	0,1W	
3527	4822 051 20472	4K70	5%	0,1W	
3528	4822 116 83884	47K	5%	0,5W	
3529	4822 051 20759	75R00	5%	0,1W	
3530	4822 051 20472	4K70	5%	0,1W	
3531	4822 051 20101	100R00	5%	0,1W	
3532	4822 051 20101	100R00	5%	0,1W	
3533	4822 051 20759	75R00	5%	0,1W	
3534	4822 051 20008	0R00 JUMP (0805)			
3535	4822 117 11503	220E	1%	0.1W	
3536	4822 117 11503	220E	1%	0.1W	
3537	4822 116 83872	220E	5%	0,5W	
3538	4822 116 83961	6K8	5%		
3539	4822 116 83961	6K8	5%		
3540	4822 117 11503	220E	1%	0.1W	
3542	4822 117 11503	220E	1%	0.1W	
3543	4822 051 20471	470R00	5%	0,1W	
3544	4822 117 11503	220R	1%	0.1W	
3545	4822 116 52256	2K2	5%	0,5W	
3546	4822 116 52256	2K2	5%	0,5W	
3547	4822 051 20479	47R00	5%	0,1W	
3548	4822 051 20682	6K80	5%	0,1W	
3549	4822 051 20101	100R00	5%	0,1W	
3550	4822 051 20105	1M00	5%	0,1W	
3551	4822 051 20105	1M00	5%	0,1W	
3552	4822 051 20682	6K80	5%	0,1W	
3553	4822 051 20101	100R00	5%	0,1W	
3554	4822 051 20101	100R00	5%	0,1W	
3555	4822 051 20008	0R00 JUMP (0805)			
3556	4822 051 20474	470K00	5%	0,1W	
3557	4822 051 20104	100K00	5%	0,1W	
3560	4822 051 20008	0R00 JUMP (0805)			
3561	4822 051 20472	4K70	5%	0,1W	
3562	4822 051 20473	47K00	5%	0,1W	
3563	4822 051 20822	8K20	5%	0,1W	
3570	4822 116 83864	10K	5%	0,5W	
3571	4822 117 11383	12K	1%	0,1W	
3600	4822 116 52257	22K	5%	0,5W	
3601	4822 117 10833	10K	1%	0,1W	
3602	4822 051 20472	4K70	5%	0,1W	
3603	4822 051 20101	100R00	5%	0,1W	
3604	4822 116 52257	22K	5%	0,5W	
3605	4822 117 11449	2K2	1%	0,1W	
3606	4822 116 52195	47E	5%	0,5W	
3607	4822 051 20394	390K00	5%	0,1W	
3608	4822 117 11383	12K	1%	0,1W	
3609	4822 051 20822	8K20	5%	0,1W	
3610	4822 117 11449	2K2	1%	0,1W	
3611	4822 051 20101	100R00	5%	0,1W	for mono
3611	4822 051 20681	680R00	5%	0,1W	for stereo
3612	4822 117 11449	2K2	1%	0,1W	
3615	4822 051 20101	100R00	5%	0,1W	
3618	4822 100 12159	100K	30%	POT	
3619	4822 051 20158	1R50	5%	0,1W	
3620	4822 051 20473	47K00	5%	0,1W	
3622	4822 051 20335	3M30	5%	0,1W	
3623	4822 117 10833	10K	1%	0,1W	
3624	4822 051 20332	3K30	5%	0,1W	
3625	4822 051 20339	33R00	5%	0,1W	
3626	4822 051 20224	220K00	5%	0,1W	
3627	4822 051 20563	56K00	5%	0,1W	
3638	4822 051 20109	10R00	5%	0,1W	
3655	4822 051 20681	680R00	5%	0,1W	
3656	4822 116 83961	6K8	5%		
3657	4822 051 20391	390R00	5%	0,1W	
3702	4822 051 20101	100R00	5%	0,1W	
3703	4822 051 20101	100R00	5%	0,1W	
3704	4822 051 20182	1k80	5%	0,1W	
3705	4822 051 20223	22K00	5%	0,1W	
3706	4822 051 20182	1k80	5%	0,1W	
3707	4822 051 20101	100R00	5%	0,1W	
3708	4822 051 20101	100R00	5%	0,1W	
3709	4822 051 20101	100R00	5%	0,1W	
3712	4822 051 20272	2K70	5%	0,1W	
3715	4822 051 20122	1K20	5%	0,1W	
3723	4822 051 20224	220K00	5%	0,1W	
3725	4822 051 20333	33K00	5%	0,1W	
3726	4822 051 20273	27K00	5%	0,1W	
3729	4822 051 20391	390R00	5%	0,1W	
3730	4822 051 20183	18K00	5%	0,1W	
3731	4822 051 20183	18K00	5%	0,1W	
3732	4822 051 20391	390R00	5%	0,1W	
3735	4822 117 11448	180R	1%	0,1W	for mono SEC
3735	4822 051 20391	390R00	5%	0,1W	
3736	4822 051 20562	5K60	5%	0,1W	
3737	4822 051 20392	3K90	5%	0,1W	
3739	4822 051 20681	680R00	5%	0,1W	
3742	4822 100 12158	22K	30%	POT	
3744	4822 051 20154	150K00	5%	0,1W	
3747	4822 051 20391	390R00	5%	0,1W	for SECAM
3747	4822 051 20331	330R00	5%	0,1W	for SEC DK
3747	4822 051 20271	270E	5%	0,1W	for PAL
3748	4822 100 12156	4K7	30%	POT	for PLL adj.
3748	4822 100 12158	22K	30%	POT	for Bd. 1 adj.
3749	4822 051 20681	680R00	5%	0,1W	
3750	4822 051 20331	330R00	5%	0,1W	
3760	4822 051 10102	1K00	2%	0,25W	
3760	4822 051 20821	820R00	5%	0,1W	for PAL I
3761	4822 051 10102	1K00	2%	0,25W	
3762	4822 051 10102	1K00	2%	0,25W	
3764	4822 051 10102	1K00	2%	0,25W	for PAL
3764	4822 051 20821	820R00	5%	0,1W	for SECAM
3765	4822 051 20562	5K60	5%	0,1W	
3766	4822 051 20473	47K00	5%	0,1W	
3767	4822 051 20472	4K70	5%	0,1W	
3768	4822 051 20104	100K00	5%	0,1W	
3769	4822 051 20472	4K70	5%	0,1W	
3770	4822 051 20104	100K00	5%	0,1W	
3771	4822 051 20472	4K70	5%	0,1W	
3772	4822 051 20104	100K00	5%	0,1W	
3773	4822 051 20104	100K00	5%	0,1W	
3780	4822 051 20101	100R00	5%	0,1W	
3781	4822 051 20101	100R00	5%	0,1W	
3782	4822 051 20333	33K00	5%	0,1W	
3790	4822 051 20472	4K70	5%	0,1W	
3791	4822 051 20562	5K60	5%	0,1W	
3792	4822 051 20472	4K70	5%	0,1W	
3793	4822 051 20562	5K60	5%	0,1W	
3805	4822 051 20101	100R00	5%	0,1W	
3807	4822 051 20479	47R00	5%	0,1W	
3808	4822 051 20479	47R00	5%	0,1W	
3813	4822 051 20472	4K70	5%	0,1W	
3815	4822 117 10833	10K	1%	0,1W	
3816	4822 117 10833	10K	1%	0,1W	
3817	4822 117 10833	10K	1%	0,1W	
3818	4822 051 20153	15K00	5%	0,1W	
3819	4822 117 10833	10K	1%	0,1W	
3820	4822 117 10833	10K	1%	0,1W	
3821	4822 117 10833	10K	1%	0,1W	
3822	4822 051 20153	15K00	5%	0,1W	
3823	4822 117 10833	10K	1%	0,1W	
3824	4822 117 11449	2K2	1%	0,1W	
3825	4822 051 20472	4K70	5%	0,1W	
3826	4822 051 20153	15K00	5%	0,1W	
3827	4822 051 20104	100K00	5%	0,1W	
3828	4822 117 10833	10K	1%	0,1W	
3829	4822 117 10833	10K	1%	0,1W	
3850	4822 117 12708	39K	1%	0,1W	
3851	4822 051 20473	47K00	5%	0,1W	
3852	4822 051 20392	3K90	5%	0,1W	
3853	4822 051 20473	47K00	5%	0,1W	
3854	4822 051 20392	3K90	5%	0,1W	
3855	4822 051 20104	100K00	5%	0,1W	
3856	4822 051 20104	100K00	5%	0,1W	

⚠ ... Safety component, use only this type

Motherboard PAL, SECAM, MONO, STEREO

3857	4822 051 20335	3M30	5%	0,1W
3858	4822 117 11449	2K2	1%	0,1W
3860	4822 051 20101	100R00	5%	0,1W
3861	4822 051 20101	100R00	5%	0,1W
3862	4822 051 20104	100K00	5%	0,1W
3863	4822 051 20104	100K00	5%	0,1W
3864	4822 051 20472	4K70	5%	0,1W
3865	4822 051 20472	4K70	5%	0,1W
3866	4822 051 20475	4M70	5%	0,1W
3867	4822 051 20475	4M70	5%	0,1W
3870	4822 051 20472	4K70	5%	0,1W
3871	4822 051 20223	22K00	5%	0,1W
3901	4822 051 20008	0R00 JUMP (0805)		
3902	4822 051 20008	0R00 JUMP (0805)		
3903	4822 051 20008	0R00 JUMP (0805)		
3905	4822 051 20008	0R00 JUMP (0805)		
3906	4822 051 20008	0R00 JUMP (0805)		
3907	4822 051 20008	0R00 JUMP (0805)		
3908	4822 051 20008	0R00 JUMP (0805)		
3910	4822 051 20008	0R00 JUMP (0805)		
3911	4822 051 20008	0R00 JUMP (0805)		
3912	4822 051 20008	0R00 JUMP (0805)		
3913	4822 051 20008	0R00 JUMP (0805)		
3915	4822 051 20008	0R00 JUMP (0805)		
3916	4822 051 20008	0R00 JUMP (0805)		
3917	4822 051 20008	0R00 JUMP (0805)		
3918	4822 051 20008	0R00 JUMP (0805)		
3919	4822 051 20008	0R00 JUMP (0805)		
3922	4822 051 20008	0R00 JUMP (0805)		
3923	4822 051 20008	0R00 JUMP (0805)		
3925	4822 051 20008	0R00 JUMP (0805)		
3926	4822 051 20008	0R00 JUMP (0805)		
3927	4822 051 20008	0R00 JUMP (0805)		
3928	4822 051 20008	0R00 JUMP (0805)		
3929	4822 051 20008	0R00 JUMP (0805)		
3930	4822 051 20008	0R00 JUMP (0805)		
3931	4822 051 20008	0R00 JUMP (0805)		
3941	4822 051 20008	0R00 JUMP (0805)		
3942	4822 051 20008	0R00 JUMP (0805)		
3943	4822 051 20008	0R00 JUMP (0805)		
3944	4822 051 20008	0R00 JUMP (0805)		
3945	4822 051 20008	0R00 JUMP (0805)		
3946	4822 051 20008	0R00 JUMP (0805)		
3947	4822 051 20008	0R00 JUMP (0805)		
3950	4822 051 20008	0R00 JUMP (0805)		
3951	4822 051 20008	0R00 JUMP (0805)		
3956	4822 051 20008	0R00 JUMP (0805)		
3960	4822 051 20008	0R00 JUMP (0805)		
3961	4822 051 20008	0R00 JUMP (0805)		
3962	4822 051 20008	0R00 JUMP (0805)		
3965	4822 051 20008	0R00 JUMP (0805)		
3966	4822 051 20008	0R00 JUMP (0805)		
3967	4822 051 20008	0R00 JUMP (0805)		
3970	4822 051 20008	0R00 JUMP (0805)		
3972	4822 051 20008	0R00 JUMP (0805)		
3973	4822 051 20008	0R00 JUMP (0805)		
3984	4822 051 20008	0R00 JUMP (0805)		
3985	4822 051 20008	0R00 JUMP (0805)		
3986	4822 051 20008	0R00 JUMP (0805)		
3988	4822 051 20008	0R00 JUMP (0805)		
3989	4822 051 20008	0R00 JUMP (0805)		
3990	4822 051 20008	0R00 JUMP (0805)		
3998	4822 051 20008	0R00 JUMP (0805)		
3999	4822 051 20008	0R00 JUMP (0805)		
4501	4822 117 12708	39K00	5%	0,1W for INST
4505	4822 117 10833	10K	1%	0,1W for STBY
4511	4822 117 10833	10K	1%	0,1W for STBY
4512	4822 117 12708	39K00	5%	0,1W for REC
4517	4822 051 20182	1K80	5%	0,1W for DOWN
4517	4822 117 10833	10K	1%	0,1W for STBY
4518	4822 117 12708	39K00	5%	0,1W for REC
4523	4822 117 10833	10K	1%	0,1W for STBY
4523	4822 051 20008	0R00 JUMP (0805)		for ST/EJ
4563	4822 117 10833	10K	1%	0,1W for STBY
4569	4822 051 20472	4K70	5%	0,1W for UP
4570	4822 117 12708	39K00	5%	0,1W for REC
4579	4822 051 20182	1K80	5%	0,1W for DOWN
4579	4822 117 12708	39K00	5%	0,1W for INST
4580	4822 117 12708	39K00	5%	0,1W for REC
4583	4822 117 10833	10K00	1%	0,1W for STBY
4583	4822 051 20472	4K70	5%	0,1W for UP
4583	4822 051 20182	1K80	5%	0,1W for DOWN
4591	4822 117 12708	39K00	5%	0,1W for INST
4591	4822 051 20182	1K80	5%	0,1W for DOWN
4595	4822 117 12708	39K00	5%	0,1W for INST
4595	4822 051 20472	4K70	5%	0,1W for UP
4596	4822 051 20008	0R00 JUMP (0805)		for EJECT
4596	4822 117 12708	39K00	5%	0,1W for REC
4609	4822 051 20182	1K80	5%	0,1W for DOWN
4653	4822 051 20182	1K80	5%	0,1W for DOWN
4659	4822 051 20182	1K80	5%	0,1W for STOP
4559	4822 117 12708	39K00	5%	0,1W for INST
4660	4822 051 20472	4K70	5%	0,1W for REW
4660	4822 051 20182	1K80	5%	0,1W for STOP
4660	4822 051 20183	18K00	5%	0,1W for PLAY
4665	4822 051 20472	4K70	5%	0,1W for UP
4671	4822 051 20008	0R00 JUMP (0805)		for ST/EJ
4671	4822 051 20182	1K80	5%	0,1W for DOWN
4671	4822 051 20472	4K70	5%	0,1W for UP
4672	4822 051 20183	18K00	5%	0,1W for PLAY
4678	4822 117 10833	10K	1%	0,1W for WIND
4683	4822 051 20008	0R00 JUMP (0805)		for ST/EJ
4683	4822 051 20472	4K70	5%	0,1W for UP
4684	4822 117 12708	39K00	5%	0,1W for REC
4740	4822 051 20472	4K70	5%	0,1W for REW
4745	4822 051 20008	0R00 JUMP (0805)		for ST/EJ
4746	4822 051 20472	4K70	5%	0,1W for REW
4752	4822 051 20472	4K70	5%	0,1W for REW
4757	4822 051 20008	0R00 JUMP (0805)		for ST/EJ
4758	4822 051 20183	18K00	5%	0,1W for PLAY
4763	4822 117 12708	39K00	5%	0,1W for INST
4764	4822 051 20183	18K00	5%	0,1W for PLAY
4764	4822 117 10833	10K	1%	0,1W for WIND
4764	4822 117 12708	39K00	5%	0,1W for REC
4772	4822 117 10833	10K	1%	0,1W for WIND
4772	4822 051 20472	4K70	5%	0,1W for REW

COILS

5000	4822 157 11234	10µH	5%	
5001	4822 152 20677	10µH		
5002	4822 152 20677	10µH		
5004	4822 157 11142	47µH	5%	
5005	4822 157 11145	150µH	5%	
5020	4822 157 10972	15µH	5%	
5026	4822 157 11228	LAN02TB101J		
5036	4822 157 11149	56µH	5%	
5080▲	4822 157 11226	47µH	5%	
5100	4822 157 63661	FIL LC VAR 4M286		5VS
5101	4822 157 10972	15µH	5%	
5102	4822 157 11149	56µH	5%	
5103	4822 157 63661	FIL LC VAR 4M286		5VS
5104	4822 157 11227	150µH	5%	
5105	4822 157 11227	150µH	5%	
5106	4822 157 11151	330µH	5%	
5107	4822 157 11228	LAN02TB101J		
5108	4822 157 63659	FIL LC VAR 1G072		5V2
5111	4822 157 11229	15µH	5%	
5112	4822 157 10972	15µH	5%	
5113	4822 157 11145	150µH	5%	
5114	4822 157 10972	15µH	5%	
5115	4822 157 63717	6,8µH		
5130	4822 157 71206	BLM21A10PT		
5150▲	4822 157 53906	47µH		
5200	4822 152 20677	10µH		
5300▲	4822 157 53005	0.33µH	20%	
5350	4822 157 51462	10µH		
5351	4822 157 71461	22µH	10%	
5352▲	4822 157 10454	Line filter		

▲... Safety component, use only this type

Motherboard PAL, SECAM, MONO, STEREO

5353⚠	4822 146 10786	SRW32ES-E01(TRAFO)
5353/80	4822 466 11688	ISOL. PLATE (TRAFO 5353)
5354	4822 157 51462	10µH
5355⚠	4822 157 53005	0,33µH
5358	4822 157 60147	2,2µH
5361	4822 157 52286	22µH
5368	4822 157 60147	2,2µH
5400	4822 152 20677	10µH
5402	4822 152 20677	10µH
5601	4822 157 11249	10.000UH 5%
5602	4822 157 11151	330µH 5%
5603	4822 157 53531	Coil
5604	4822 157 11251	3,3µH 10%
5605	4822 157 71206	BLM21A10PT
5700	4822 157 71206	BLM21A10PT
5702	4822 152 20677	10µH
5703	4822 152 20677	10µH
5705	4822 152 20677	10µH
5720	4822 157 11231	LAN02TB1R0J
5721	4822 157 70877	H292ONS-6785NK
5725	4822 157 70877	H292ONS-6785NK
5726	4822 051 20008	0R00 JUMP (0805)
5740	4822 157 11232	12µH 5% for SECAM LL'
5740	4822 157 11229	15µH 5% for PAL
5741	4822 157 11223	39µH 5%
5780	4822 157 70038	10mH 5%
5800	4822 157 11233	LAN02TB330J
5801	4822 152 20677	10µH
5810	4822 157 11234	10µH 5%
5831	4822 157 11235	LANO2TB220J

DIODES

6100	4822 130 32778	1SS133
6135	4822 130 34197	BZX79-B12 (MTZJ12C)
6250	4822 130 34197	BZX79-B12
6299	4822 130 10869	RB441
6350	4822 130 30842	BAV21
6351	4822 130 31983	BAT85
6352	4822 130 42488	BYD33D
6353	4822 130 42488	BYD33D
6354	4822 130 80858	1N5062
6355	4822 130 42488	BYD33D
6356	4822 130 42488	BYD33D
6357	4822 130 10871	DIODE RECT SBYV2
6358	5322 130 31938	BYV27-200
6359	4822 130 32715	SB340 for stereo
6359	4822 130 83909	BYW98-200RL for mono
6360	4822 130 83147	DF06M
6371	4822 130 42488	BYD33D
6372	4822 130 34142	BZX79-B33
6460	4822 130 10231	SET: 2x Sens + 1x Led
6500	4822 130 34197	BZX79-B12
6501	4822 130 34197	BZX79-B12
6502	4822 130 34197	BZX79-B12
6509	4822 130 34197	BZX79-B12
6510	4822 130 34197	BZX79-B12
6511	4822 130 10884	MTZJ18C
6516	4822 130 34278	BZX79-B6V8
6530	4822 130 10654	BAT254
6601	4822 130 30861	BZX79-B7V5
6760	4822 130 10414	BA792
6761	4822 130 10414	BA792

TRANSISTORS & IC's

7000	4822 130 42353	BSF19-F2
7001	4822 130 10872	MMUN2112LT1
7002	4822 130 60511	BC847B
7003	4822 209 15526	LC89980M
7004	4822 130 42353	BSF19-F2
7005	5322 130 60508	BC857B
7006	4822 130 60511	BC847B
7007	4822 209 15527	LA71525M
7008	5322 130 60508	BC857B
7009	4822 130 10872	MMUN2112LT1
7011	4822 130 60511	BC847B
7020	4822 130 63732	MMUN2212
7021	5322 130 60508	BC857B
7080	4822 209 90421	STV5712
7085	4822 130 60511	BC847B
7100	4822 130 60511	BC847B
7101	4822 130 60511	BC847B
7102	4822 209 73852	PMBT2369
7103	4822 130 60511	BC847B
7104	4822 130 63732	MMUN2212
7105	5322 130 60508	BC857B
7106	4822 130 60511	BC847B
7110	4822 209 90189	TDA4722/V2
7150	4822 209 13121	STV5742
7151	4822 209 15548	STV5744AD
7153	4822 130 60511	BC847B
7201	4822 209 15516	TMP87CS71F QDCE1-xP
7201	4822 209 15517	TMP87CS71F QDCE2-xU
7201	4822 209 15518	TMP87CS71F QDCE3-xU
7201	4822 209 15521	TMP87CS71F QDCH1-xP
7201	4822 209 15519	TMP87CS71F QDCH2-xU
7201	4822 209 15528	TMP87CS71F QDCH3-xU
7201	4822 209 15549	TMP87CS71F QDCH4-xU
7201	4822 209 15573	TMP87CS71F QDCH5-xU
7202	4822 135 00115	25U39113SA (Display)
7203	4822 212 30842	TSOP1736 (IR-receiver)
7231	4822 130 63732	MMUN2212
7300	4822 209 13126	TDA5241
7301	4822 130 10872	MMUN2112LT1
7350⚠	4822 130 63794	STP3NA60
7350/2	4822 255 10387	COOLING BLOCK (HEAT SINK)
7350/3	4822 502 14482	SCREW M3x6
7351⚠	4822 209 32126	SOC1012T (OPTO)
7352	4822 209 81397	TL431CLpST
7353	4822 130 10214	STD17N06
7354	4822 209 90025	MC44603P
7356	4822 130 60511	BC847B
7357	4822 130 10214	STD17N06
7358	4822 130 40995	BD438
7359	4822 130 60511	BC847B
7400	4822 209 15529	TMP91C642AF QTDP2-xU
7420	4822 209 90313	L4812CV for stereo
7420	4822 209 81726	MC7812CT for mono
7440	4822 209 30146	L2722
7455	4822 130 10872	MMUN2112LT1
7456	4822 130 60511	BC847B
7457	4822 130 60511	BC847B
7458	4822 130 60511	BC847B
7460	4822 209 30836	SAA1310/N2
7461	4822 130 10231	SET: 2x Sens + 1x Led
7462	4822 130 10231	SET: 2x Sens + 1x Led
7463	4822 130 41344	BC337-40
7464	4822 130 10233	TCRT5000L
7465	4822 130 10233	TCRT5000L
7466	4822 130 10234	TCST1030L
7467	4822 130 60511	BC847B
7468	4822 130 60511	BC847B
7469	4822 130 60511	BC847B
7500	4822 130 60511	BC847B
7501	5322 130 60508	BC857B
7502	4822 130 60511	BC847B
7505	4822 130 63732	MMUN2212
7506	4822 130 10872	MMUN2112LT1

⚠ ... Safety component, use only this type

Motherboard PAL, SECAM, MONO, STEREO

7507	4822 209 90016	STV6400
7510	5322 130 42136	BC848C
7511	4822 130 42615	BC817-40
7512	5322 130 42136	BC848C
7513	5322 209 14481	HEF4053BT
7513	5322 209 14481	HEF4053BT
7540	4822 209 15504	SDA5650 for VPS/PDC
7540	4822 209 32728	SDA5642.6 for VPS only
7600	4822 130 60373	BC856B
7601	5322 130 60159	BC846B
7602	5322 130 60159	BC846B
7603	4822 130 60511	BC847B
7604	4822 130 41715	BC328-40
7609	4822 130 42615	BC817-40
7720	4822 209 90288	TDA9800T/V3
7721	4822 209 90018	TDA9812T for SECAM mono
7721	4822 209 90431	TDA9813T/V2 for PAL FM stereo
7721	4822 209 90452	TDA9814T/V3 for SECAM stereo
7722	5322 209 14481	HEF4053BT
7723	5322 130 60508	BC857B
7724	5322 130 42136	BC848C
7725	4822 130 60511	BC847B
7726	4822 130 63732	MMUN2212
7728	4822 130 10802	BSS138
7729	4822 130 60511	BC847B
7730	4822 130 60511	BC847B
7731	4822 130 63732	MMUN2212
7780	4822 209 32501	TDA9840T/V2
7800	4822 209 15524	LC74781-9663
7810	4822 130 42353	BSF19-F2
7850	4822 209 15525	TDA9604H/N1
7851	4822 130 60511	BC847B
7852	4822 130 60511	BC847B
7860	4822 209 60177	LM339D
7890	4822 209 33113	ST24C08CB6 for GEMSTAR
7890	4822 209 30953	ST24C04CB6

QNIC

MISCELLANEOUS

1700⚠	4822 071 52501	Fuse	250mA
1710	4822 242 10433	Crystal	8,192 MHz
1970	4822 265 10943	CONN	11P

CAPACITORS

2700	4822 122 33172	390pF	5%	50V
2701	5322 122 32448	10pF	5%	50V
2703	4822 126 10002	100nF	20%	25V
2704	4822 122 33575	220pF	5%	50V
2705	4822 124 22826	10µF		16V
2706	4822 124 22826	10µF		16V
2707	4822 126 13061	220nF	20%	25V
2708	5322 122 32654	22nF	10%	63V
2709	5322 122 32531	100pF	5%	50V
2710	5322 122 32531	100pF	5%	50V
2714	4822 124 23027	47µF		6.3V
2716	4822 124 23027	47µF		6.3V
2718	4822 126 10002	100nF	20%	25V
2719	4822 122 33175	2,2nF	20%	50V
2720	4822 122 33175	2,2nF	20%	50V
2721	4822 126 13061	220nF	20%	25V
2722	4822 122 33175	2,2nF	20%	50V
2723	4822 122 33175	2,2nF	20%	50V
2725	4822 124 23053	1µF	20%	63V
2726	4822 122 33797	47nF	20%	50V
2727	4822 124 23027	47µF		6.3V
2728	4822 126 10002	100nF	20%	25V
2729	4822 124 22826	10µF		16V
2731	4822 124 22826	10µF		16V
2732	4822 126 10002	100nF	20%	25V
2733	4822 124 23027	47µF		6.3V
2734	5322 122 32654	22nF	10%	63V
2736	4822 126 10002	100nF	20%	25V
2752	4822 126 13061	220nF	20%	25V
2753	4822 126 13061	220nF	20%	25V

RESISTORS

3700	4822 051 10102	1K00	2%	0,25W
3701	4822 051 20101	100R00	5%	0,1W
3702	4822 051 20223	22K00	5%	0,1W
3703	4822 051 20104	100K00	5%	0,1W
3704	4822 117 11449	2K2	1%	0,1W
3705	4822 051 20392	3K90	5%	0,1W
3707	4822 116 52276	3K9	5%	0,5W
3708	4822 117 11449	2K2	1%	0,1W
3710	4822 051 20334	330K00	5%	0,1W
3711	4822 116 52175	100E	5%	0,5W
3712	4822 116 52175	100E	5%	0,5W
3713	4822 051 20182	1K80	5%	0,1W
3714	4822 051 20333	33K00	5%	0,1W
3715	4822 117 10833	10K	1%	0,1W
3720	4822 117 10833	10K	1%	0,1W
3721	4822 117 10833	10K	1%	0,1W
3722	4822 117 10833	10K	1%	0,1W
3723	4822 117 10833	10K	1%	0,1W
3790	4822 051 20008	0R00	JUMP (0805)	
3792	4822 051 20008	0R00	JUMP (0805)	
3793	4822 051 20008	0R00	JUMP (0805)	
3794	4822 051 20008	0R00	JUMP (0805)	
3795	4822 051 20008	0R00	JUMP (0805)	
3796	4822 051 20008	0R00	JUMP (0805)	
3797	4822 051 20008	0R00	JUMP (0805)	

COILS

5700	4822 157 63717	6,8MµH
5703	4822 157 71206	BLM21A10
5704	4822 157 71206	BLM21A10
5705	4822 157 71206	BLM21A10
5706	4822 157 71206	BLM21A10
5707	4822 157 71206	BLM21A10

DIODES

6700	4822 130 10652	BB149
6701	4822 130 83757	BAS216

TRANSISTORS & IC's

7700	4822 209 14809	SAA7284Z
7701	5322 209 61487	LM358N

⚠ ... Safety component, use only this type

CABLES & SUB MODULS

CABLES

8001	4822 320 11889	FFC TD1-1961
8002	4822 323 10374	CABLE TREE TD2-1962
8003	4822 320 11891	FFC TD3-1944
8004	4822 320 11892	FFC TD4-1930
8005	4822 320 11888	FFC 1901-1945
8006	4822 320 12343	FFC 1103-1711
8007	4822 320 11891	FFC 1710-1750
8008	4822 323 10373	ESD-GND CONN.
	▲ 4822 321 10886	MAINS CORD (+FUSE) for UK
	▲ 4822 321 10249	MAINS CORD
	4822 320 50377	ANTENNA cable
	4822 321 63002	SCART cable

SUB MODULS

4822 214 12238	CINCH print rear
4822 214 12248	QKP21 Shuttle print
4822 214 12744	ACP1 CINCH print front

▲ ... Safety component, use only this type